



Advancing Adult Learning in Eastern Europe and Central Asia

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In recent years skill shortages in the labor force have become a key challenge in many countries in Eastern Europe and Central Asia (ECA), suggesting that policies for continuous upgrading of skills of the workforce are increasingly important. OECD countries have identified adult education and training as a critical part of their education policy agenda, yet in many ECA countries this issue has remained peripheral to the efforts to reform education and training systems. This paper presents available evidence on the extent and patterns of lifelong learning in ECA. It argues that advancing adult education and training in ECA is important not only to meet the new skills demands but also to respond to a rapidly worsening demographic outlook across most of the region. While it is not equally important for all ECA countries, adult education and training should be high on the agenda of those ECA economies that are closest to the technological frontier and facing a demographic decline, such as the new EU Member States and Russia. The paper lays out a framework for government action to advance adult learning in ECA through a mix consisting of policy coordination between government and the enterprise sector, a sound regulatory regime and appropriate financial incentives.

JEL Classification: I28, J24

Keywords: on-the-job training, Eastern Europe, firms, human capital, skills, training

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Executive Summary

Emerging skill shortages imply that adult education and training is fast becoming an important element of the education and training systems in Eastern Europe and Central Asia (ECA). First, the closer ECA countries move to the technological frontier, the greater the need for continual upgrading of skills to allow countries to remain competitive. Second, the rapid demographic decline expected for many ECA countries suggests that each worker will have to become more productive and stay so for longer if growth is to be sustained.

The state of adult education and training in ECA

This report presents available evidence on adult education and training in ECA, differentiating two separate types: (i) continuing vocational education and training (CVET) for the employed, sought either by employers or individuals, and (ii) retraining and second chance education for the non-employed. Despite considerable data constraints (ECA data is mainly limited to the EU10 countries), the paper arrives at the following findings:

- *The extent of worker training varies across ECA, largely according to per capita income and with a broad East-West divide*, and several ECA countries have training participation rates similar to advanced EU Member States: A much smaller share of firms in less developed ECA countries, such as low-income CIS countries, are engaged in worker training than in most middle-income EU10 countries. EU10 countries occupy a middle-to-bottom range among EU Member States. The Czech Republic, the Slovak Republic, Estonia and Slovenia, the frontrunners across ECA, have higher participation in training and a higher share of firms who provide training than many old EU Member States. Firm training rates on aggregate do not appear to be low compared to leading economies in the EU if adjusted to per capita GDP as a measure of how advanced the economies are.
- *Adult education and training spending represents a sizable share of GDP, with largely private financing for CVET and public financing for programs for the non-employed, while provision is both public and private*. Spending on CVET alone was estimated to amount to 0.2-1.0 percent of GDP in 2005, both including direct costs and labor cost. CVET dwarfs retraining for the unemployed in terms of participants and spending, and while detailed data remain limited, it appears that the lion's share of CVET is financed privately or through private-public co-financing. It also appears that private provision has become dominant in most ECA countries during the transition, although the public sector retains a share in the adult education and training market in some countries, not least through the involvement of public vocational schools and universities.
- *However, the participation in adult learning in ECA is uneven*. Training rates are higher for men than for women, for skilled individual than for less skilled, for younger than for older people, for the employed than for the unemployed and inactive and for large firms than for small firms. While this finding is in line with evidence from around the world, it appears that in some cases the differentials are higher for ECA countries than for example for advanced EU countries. Retraining and second chance education and training is relatively limited in ECA countries. Moreover, there appears to be a lower share of disadvantaged workers in the EU10 who participate in adult education and training than in the old EU Member States.

- *Barriers to more education and training in the EU10 countries* are related to (i) costliness of training, both in terms of direct financial cost and opportunity cost in terms of working time and leisure time lost – constraint that appear bigger relative to the EU15; (ii) lack of information on training opportunities which appears more binding for less skilled individuals including the unemployed; and (iii) in some cases, a relative under-supply of training providers and lack of preconditions for education and training.

An agenda for advancing adult education and training in ECA...

Building systems for adult education and training cannot be achieved over night. Based on the experience from across OECD countries, advancing adult learning in ECA will require a comprehensive strategy to unlock private demand for education and training, including through smart use of regulation and, where appropriate, strategic financial incentives.

Advancing adult learning in ECA will require, as a critical precondition, close coordination across ministries, regional governments, firms and workers' representatives – beyond the extent typically found in ECA countries so far. This coordination is best supported by a managing agency for adult learning, and sector-level councils. In order for adult learning to be effective, private sector stakeholders – firms and workers – must have a powerful voice in setting policy, particularly at the sector level. Coordination efforts also need to address information barriers and how to better reach those groups in the population currently not well aware of benefits of and opportunities for adult education and training.

Second, it will require developing a regulation and certification regime: Effective regulation sets qualifications (descriptors) and fosters the dissemination of information about the skills of workers through national qualification frameworks which facilitate the recognition of prior non-formal and informal learning. National qualification systems are a critical ingredient of an adult education and training system which is both flexible and responsive to labor market needs. They are best developed in a measured way with adequate consultation. The other key component of regulation is evaluating and accrediting education and training providers – which again contributes to better information about available quality training programs. Neither regulation nor certification systems can be installed over night, but can be built gradually.

Third, it will require testing new financing arrangements which strengthen the demand for education and training, building on labor market needs. Government financing can incentivize private investment in CVET for the *employed* – yet private investment should take the lion's share in financing CVET due to the private nature of its return. Indeed, financial investments for CVET can be seen as a second-order intervention, following better coordination and regulation. Incentives for firm-specific skills are best targeted to employers through tax deductions, grant-levy systems or matching grants, and should aim to target firms and workers that are unlikely to seek training in the absence of the incentive so as to minimize deadweight loss. Also attractive is co-financing to workers to develop skills not needed by their firms through demand-side incentives. Retraining for the *unemployed* must be systematically targeted to those who will most benefit from it, in order for it to be cost-effective. At the same time, the most disadvantaged tend to be underserved in ECA countries. Successful approaches, including on second chance education, require a combination of better outreach mechanisms, and intensive training designed to address multiple skills gaps. Lastly, publicly financed retraining programs give the government a substantial role as purchaser of training services which it can strategically use to foster a climate of competition also benefiting CVET.

Advancing Adult Learning in Europe and Central Asia

The demand for a more skilled work force is increasing globally, and continual upgrading of skills of the workforce has become an important part of the recent policy agenda in OECD countries. For countries in the Europe and Central Asia (ECA) region the issue of skills and re-skilling its workforce is critical not only to compete internationally but also to address the lag effect of transition where large segments of the labor force remains inactive. Likewise, the rapid demographic decline expected for many ECA countries suggests that each worker will have to become more productive and stay so for longer. This report discusses the concept of adult education and training, argues why it is important for ECA and assesses where ECA countries stand. It identifies barriers to expanding adult education and training both from a theoretical and empirical view point and lays out a policy framework for advancing adult education and training across ECA.

1. Introduction

The concepts of adult education and training

Lifelong learning has been identified across OECD countries as a key contributor towards promoting productivity and achieving long-term economic growth, while enhancing equity.

Lifelong learning is generally defined as encompassing learning across the life cycle – from early childhood education to adult education – and various forms of learning – formal, non-formal and informal learning (see Box 1). This chapter focuses on education and training for adults of ages of 25-64, whether employed, unemployed or outside the labor force. It can be differentiated into two separate categories of training:

- *Continuing Vocational Education and Training (CVET) programs for the currently employed.* First, these include in-service training designed to aid employees in acquiring new competencies or improvement of existing ones relevant to their firms. In-service training plays a critical role in increasing human capital of the existing workforce, addressing skill depletion and keeping older workers productive for longer as well as alleviating skills mismatch. CVET covers any training that is undertaken when an individual is employed, whether on site or off site and can include types of formal education, non-formal and informal education and training. Second, it also includes education and training of individuals who seek to develop skills that will raise their chances of moving to a better job (hence education and training is not related to their current job).
- *Retraining and remedial basic skills training (“second chance” education) for the non-employed.* These are programs oriented at the unemployed and those outside the labor force to address skills-related barriers to employment. Many ECA countries continue to have high percentages of the population that lack basic skills as a result of early school leaving or bad learning outcomes. First, most ECA countries provide training as part of active labor market programs, and there is reason to believe that well-designed programs can have positive economic returns in the region (Betcherman et al., 2004). Second, “second chance” education programs provide basic skills, including for example literacy, to help youth and adults to access the labor market and further education and training.

Box 1: Formal, non-formal education and training and informal learning

Formal education and training is defined as education provided in the system of schools, colleges, universities and other formal educational institutions that normally form the full-time continuous education process for children and young people, generally beginning at the age of five to seven and continuing to up to 20 or 25 years old.

Non-formal education and training is defined as any intentional, organized and sustained educational activities that do not meet the definition of formal education and typically does not lead to a formal certification. Non-formal education and training is usually provided outside educational institutions, yet structured in terms of learning objectives, learning time or learning support and cater to persons of all ages. Depending on country contexts, it may cover activities to impart adult literacy, basic education for out of school children, life-skills, work-skills, and general culture. Definitions used for the EU Adult Education Survey include courses, seminars or workshops outside the formal education system (including non formal distance learning), private lessons, conferences or guided on the job trainings – all both job-related or not job-related.

Informal learning results from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning can be intentional and non-intentional.

Source: European Commission

Why is adult education and training important for ECA?

Adult education and training is an important element of the life-time accumulation of human capital. As much as one half of lifetime human capital is accumulated in the period after formal schooling, i.e. through adult education and training (Heckman, 1999). Moreover, adult education and training is set to become more important for ECA countries as they approach the technological frontier: Technological change may become faster than labor force renewal through inflow of younger, more productive workers with more relevant skills and outflow of older workers with obsolete skills. Keeping up with technological change, and exploiting its potential, will therefore require further educating and training current workers and prime age individuals to update their skills. In addition, adult education and training can help those who left school early to acquire necessary skills later and therefore become more likely to find work and become more productively employed.

There is a large international literature documenting empirical evidence that adult education and training improves labor market outcomes in terms of higher wages and employment. In trying to provide some empirical underpinning to the theoretical rationale for adult education and training, several studies assessed the interaction of training with wages and employment patterns. First, recent OECD analysis reveals a strong cross-country correlation at the aggregate level between labor force participation and employment on the one hand and both initial education and subsequent adult training on the other. At the individual level it finds that participation in adult training raises individuals' employment probability (OECD, 2004). Second, several studies find that continuous education and training raises earnings, sometimes substantially (Dearden et al., 2000). Wage premia are typically higher for training undergone with the previous employer compared to the current employer. The same holds for formal education and training compared to non-formal education, as the former is more easily signaled than the latter in the absence of a system of recognition of prior learning. Third, adult training was found to raise subjective and objective employment security (maintaining employability), in particular for older and less educated workers, while also raising labor mobility for younger and more educated workers (OECD, 2004). While this evidence comes from OECD countries, it is

relevant for the advanced ECA countries and will become increasingly relevant for less advanced ECA countries as they move closer towards the technological frontier.

Recent analysis reveals that training also has a strong positive effect on productivity and a high internal rate of return. A range of studies have shown that worker training raises productivity. Most of them took wages as a direct measure of productivity. However, recent additions to the literature argue that because in imperfect markets wages are lower than the marginal product of labor, and therefore wages do not reflect in full the added productivity². Hence wage premia may underestimate the true productivity enhancement effect. A recent study looking at industry panel data on training, value added, wages, labor and capital in the United Kingdom between 1983 and 1996 estimated an increase in productivity by 4 percent from an increase in the proportion of workers trained by 5 percentage points (Dearden et al., 2000), while also finding that the overall effect of training on productivity was twice as large as that on wages. Similar positive effects have been found in other longitudinal firm surveys in Mexico (Tan and Lopez-Acevedo, 2004) and Malaysia (Tan, 2000). Recent analysis of enterprise survey data from Russia also suggests substantial wage and productivity increases as a result of training (Lukyanova et al., 2007). Given a lack of data on costs of training, studies on internal rates of return have been extremely limited. One recent study looking at firm-level panel data in Portugal to assess the rate of return of firm-level investments in human capital through formal job-training reveals a substantial rate of return of firm training of over 8 percent for those firms who provide training (Almeida and Carneiro, 2008).

Adult learning is increasingly important for the ECA region because of both the changing demand for skills triggered by technological advancement and the rapid decline in the working age population. As ECA countries aspire to converge with advanced OECD economies, continuous re-skilling of the workforce will be required—at an ever faster pace. Much of the economic growth during the transition has been driven by restructuring, that is, the destruction of unproductive firms and creation of productive ones, triggering large job reallocation (World Bank 2005). Early productivity growth was largely through a reallocation *across* sectors and industries; now, however, growth is increasingly coming from a reallocation *between* sectors and industries. Workers will thus need to increasingly be able to move between sectors. It is at this stage that continuous education and training and new skills become increasingly relevant. Most ECA countries are also facing rapidly shrinking populations (World Bank (2007), which suggests that each worker will have to become more productive—and stay so for a longer period—if growth is to be sustained.

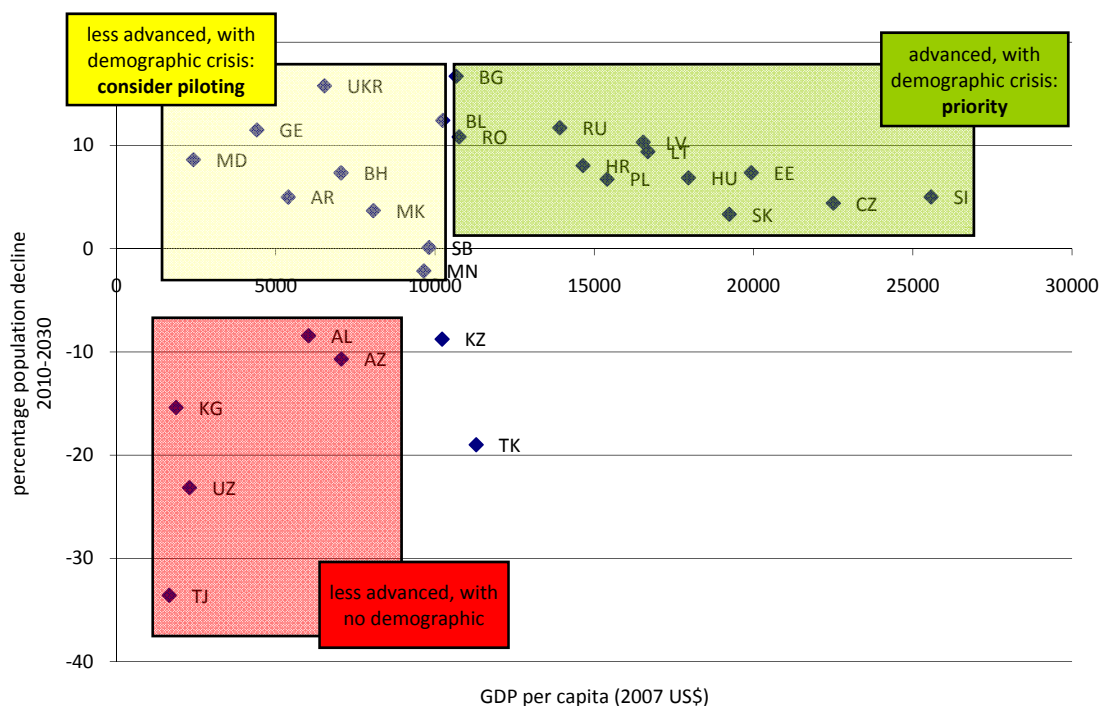
But adult education and training is not equally important for all ECA countries. While the importance of adult learning will grow for all ECA countries as they move closer to the technological frontier, it is more important now for the technologically advanced ECA countries that are already very close, and less for the less advanced. Moreover, its importance grows with the scale of the demographic decline. Figure 1 presents a simple taxonomy of countries and the importance of adult education and training – according to their GDP per capita as a measure of how advanced the economy is and according to the severity of the demographic decline. ECA countries can be broadly divided into three groups:

² There are also other methodological caveats on existing wage return studies. Selection biases may lead to an overestimation of wage returns, as non-training participants are used as comparators for participants, although there may be endogenous variation. Studies with convincing counterfactuals are limited.

- *Advanced economies facing a demographic decline*: Consisting of the new EU Member States and Russia, this group has already begun focusing on adult learning, e.g. in the framework of the European Union's Jobs and Growth Strategy. Competing in highly competitive markets, countries in this group should follow their EU neighbors in advancing adult education and training both for the skilled, currently employed and for the unskilled or less-skilled who may currently not be employed³.
- *Less advanced economies facing a demographic decline*: Comprising many countries in South-East Europe and several rapidly aging CIS countries, this group should consider piloting and developing policies to promote adult learning, but will need to balance this with other priorities in reforming their education systems.
- *Less advanced economies facing a demographic expansion*: Consisting of the bulk of Central Asian countries plus Albania, countries in this group should not consider comprehensive policies to promote adult learning as a priority.

Turkey and Kazakhstan do not fit well into any of the three groups. They have expanding populations yet aspire to move to the technological frontier, and should consider promoting adult learning a priority.

Figure 1: Demographic decline and GDP per capita: a simple taxonomy of adult education and training priority in ECA



Source: Staff calculations based on UN Population Prospects 2006

Demographic decline suggest that every person of working age is needed in the labor force, and training can make an important contribution to labor market inclusion. In addition to an

³ Bulgaria, Romania and Belarus lie close together in terms of GDP per capita and the scale of their demographic decline. However, Bulgaria and Romania should perhaps treat adult education and training as more of a priority than Belarus given their membership of the EU and their access to sizable financing for lifelong learning from EU funds.

equity imperative there is a growth imperative for social inclusion through greater skills. Many of the unemployed and economically inactive in ECA face educational disadvantage as a result of early school leaving or the failure to acquire basic skills, barring their productive (re-) employment and triggering substantial economic and financial costs in terms of lower labor force participation and productivity. In several ECA countries a significant share of 15 year-olds perform at the bottom level in reading literacy in PISA, suggesting that many will leave school without the necessary basic skills to become productively employed. Education failure is often concentrated among certain socially excluded groups, such as the Roma minority in many Central and South-East European countries.

2. Patterns of adult education and training in ECA countries

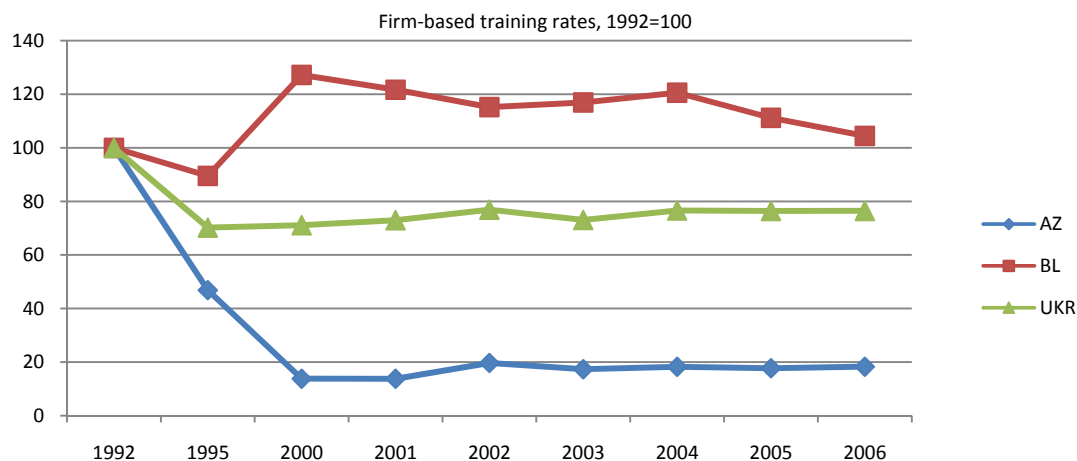
Analysis of adult education and training in ECA countries has remained limited to date, mostly owing to a lack of cross-country data. While several OECD countries have been conducting national surveys of adult training in firms for many years, such surveys have not been comparative across countries, and data for ECA countries was sparse. For ECA as a whole, the 2005 and 2008 Business Environment and Enterprise Performance Survey (BEEPS) included limited questions on adult training by firm size and limited worker characteristics; however issues with cross-country comparability preclude solid conclusions. In the European Union, the firm-based Continuing Vocational Training Survey 1999 and 2005 (CVTS) with information on worker training and the Adult Education Survey 2007 (AES) with data on individual participation in formal or non-formal education and training are the first surveys that allow cross-country analysis of patterns of adult education and training. Both include a number of ECA countries and serve as the basis of much of the analysis in this report. The data used in this paper are, therefore, centered disproportionately on the EU10. Since the agenda of advancing adult education and training is of higher relevance for the EU10+1, countries in South-Eastern Europe and middle-income CIS, the data shortcomings are felt for the latter two groups. Moreover, existing surveys place an emphasis on CVET and do not provide much information on second chance education and re-training for the unemployed. Owing to this limitation, the analysis in this report is heavily focused on CVET, while paying attention to second chance education and retraining for the unemployed where possible.

The legacy – adult training before and during the transition

A key component in the socialist production process, continuing vocational training has undergone substantial change during the transition. Adult training under communism was exclusively focusing on continuing vocational training of workers. Unemployment was non-existent, with the exception of socialist Yugoslavia where open unemployment was tolerated. Hence, adult training of the non-employed was not a feature of socialist economies. In the USSR close to 40 million people or one third of the workers were retrained, received a second profession or improved their qualifications each year (Kuddo, 1995). Retraining programs were matched to the needs of a planned economy, and most adult training courses were organized in state-owned enterprise-related training centers, a large number of which were closed or privatized during the transition. There is little data on the evolution of firm-based adult training during the transition, except for a few CIS countries. For example, in Russia, on-the-job training for workers declined by 61 per cent between 1991 and 1994, and for specialists and managers by 64 per cent (FES, 1996). This picture is confirmed for Ukraine and Azerbaijan, if not for Belarus (see Figure 2).

Retraining of workers laid off in the wake of privatization and restructuring during the transition contributed to the creation of adult education and training markets, in particular in the Central European countries. Today the adult education and training markets in the new EU Member States, for example, sees a varying mixture of public and private providers. While public training providers continue to play a role in adult education and training, a private market has emerged during the transition through the entry of a host of new private providers. The expansion of retraining for the unemployed in the early transition in response to workforce downsizing in the wake of privatization and restructuring of the state-owned enterprise sector provided an initial boost to the adult training market. As financier of retraining programs for the unemployed, the government has been an important player on the demand side of the education and training market. There are cases, such as the Czech Republic, where competitive rules for awarding retraining contracts have helped shape the market.

Figure 2: The early transition saw a dramatic decline in firm training in several CIS countries, Index of training rates in training centers linked to enterprises



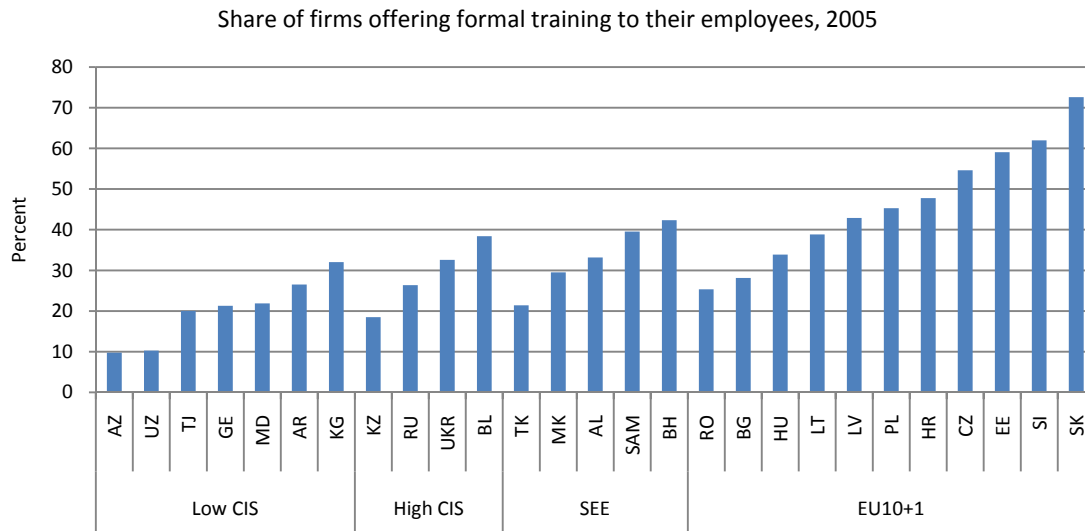
Source: Staff calculations based on data from the Interstate Statistical Committee of the CIS, Labor market in the Countries of the CIS: Statistical Abstract, 2004 and 2007

Continuing vocational education and training

Today, continuing vocational education and training provision in firms varies substantially across ECA. Figure 3 presents data from the 2005 BEEPS survey with the shares of manufacturing firms that offer formal training programs to full-time employees. The variation is wide between Slovakia where more than 72 percent of firms provide training and Azerbaijan where only about 10 percent train. A few exceptions aside, the distribution broadly follows a GDP per capita pattern, with low income CIS countries on the one side and advanced EU10 countries on the other. As will be shown in this report, independent of the data source, the Czech Republic, Slovenia, Estonia and the Slovak Republic, appear as the leading ECA countries in adult education and training. Meanwhile, many low-income CIS countries occupy the bottom end of the distribution. However, there are some surprises both at the top and the bottom end.

In the BEEPS sample Albania, Belarus, Serbia and Montenegro⁴ and Bosnia and Herzegovina found themselves in the top half among EU10 countries, while Romania and Bulgaria as well as Turkey are in the bottom half – below what would be expected given their EU membership or EU accession aspirations.

Figure 3: Firm training varies across ECA, with many EU10 countries ahead of their neighbors further east

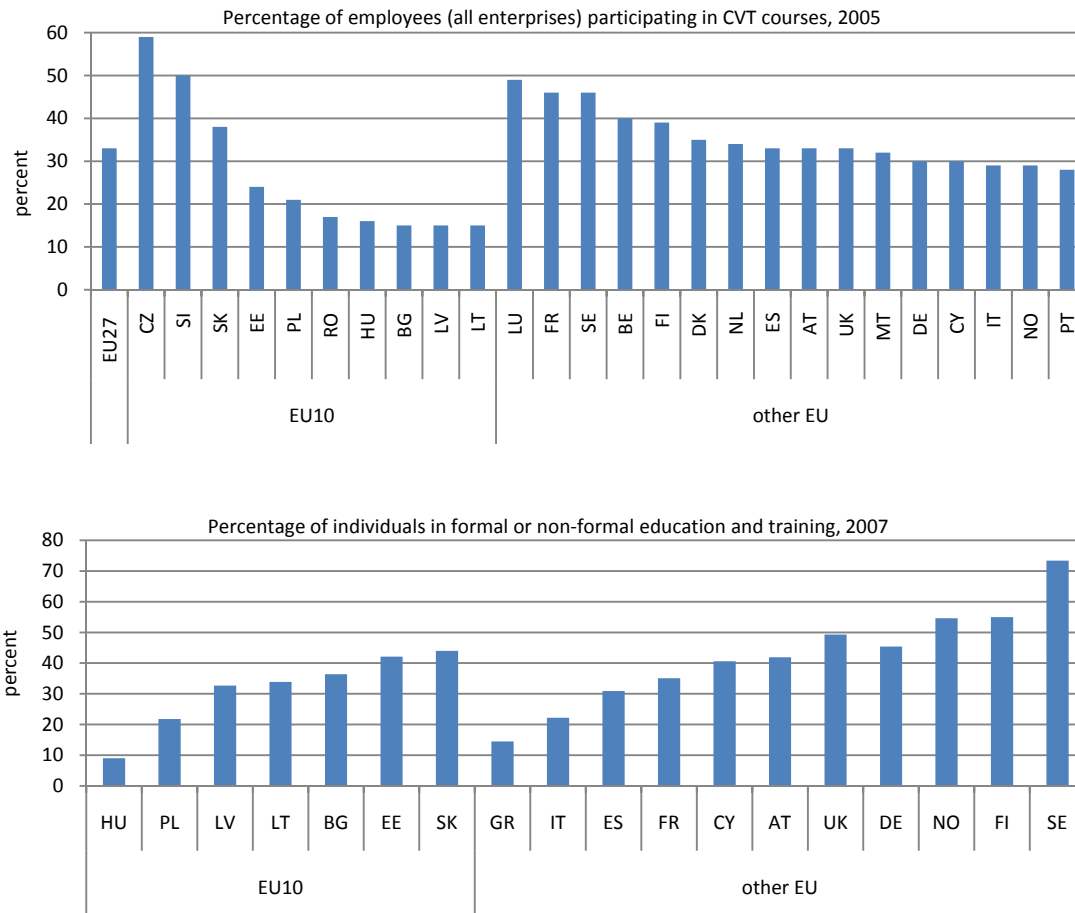


Source: Staff calculations based on BEEPS 2005

The share of firms which provide training is higher in many EU10 countries than elsewhere in ECA and on par with many EU neighbors. As seen in Figure 3 many EU10 countries are among the advanced ECA countries. Figure 4 (top panel) presents data from the European Union's Continuing Vocational Training Survey conducted in 2005 with the share of workers participating in training out of all enterprises, indicating that more workers in the Czech Republic and Slovenia participate in training than elsewhere in the EU. It is interesting that ostensibly similar countries such as the Baltic states show a rather different picture: Estonia has consistently higher training participation than Lithuania and Latvia (see Box 2). Individual-level data confirms the picture from firm-level data. Figure 4 (bottom panel) presents data from the 2007 European Union Adult Education Survey. While not all EU countries are captured in the survey as yet, the seven EU10 countries that are included occupy a middle-to-bottom position in terms of individual participation in education and training among participating Member States.

⁴ The 2005 BEEPS was conducted before the Union of Serbia and Montenegro disbanded. It does not include Turkmenistan and Kosovo.

Figure 4: Firm training in EU 10 countries compares well with EU neighbors



Source: EU CVTS (upper panel), EU AES (lower panel)

Box 2: Explaining the difference in participation in adult education and training between the Baltic states

While the Baltic states have one of the highest participation rates in adult education and training among the EU10, several surveys show that more firms and individuals participate in training in Estonia than in Latvia or Lithuania. There are a number of possible structural features in the Estonian economy and adult education and training system that may explain part of this variation.

First, variations in the structure of economy may explain differences in the share of firms who train. For example, according to a 2006 survey of individuals aged 25-64 in Lithuania, enhancement of education and qualification levels was more popular among employees in the service sector – 29 percent participated in training within 12 months prior to the survey, followed by the employees in industry and construction with 25 percent, and education with 20 percent, while only four percent of employees in agriculture received training (NVL, 2006). Since Lithuania and Latvia have a higher share of employment in agriculture, at 10.2 percent and 9.6 percent in 2007, compared with 4.4 percent in Estonia, and the share of service sector is similarly high in all the Baltic states of about two thirds of the total employment, this might partially explain the differences in overall participation in adult training.

Second, Estonia has a higher share of FDI in the economy than its neighbors, and foreign companies tend to provide more intense training to their employees.

Third, Estonia appears to have introduced a designated legal framework for adult education earlier than in Latvia and Lithuania. An Adult Education Act was introduced as early as November 1993, stipulating the right of every person for lifelong learning within entire lifetime, laying out obligations of central and local governments but also that of the

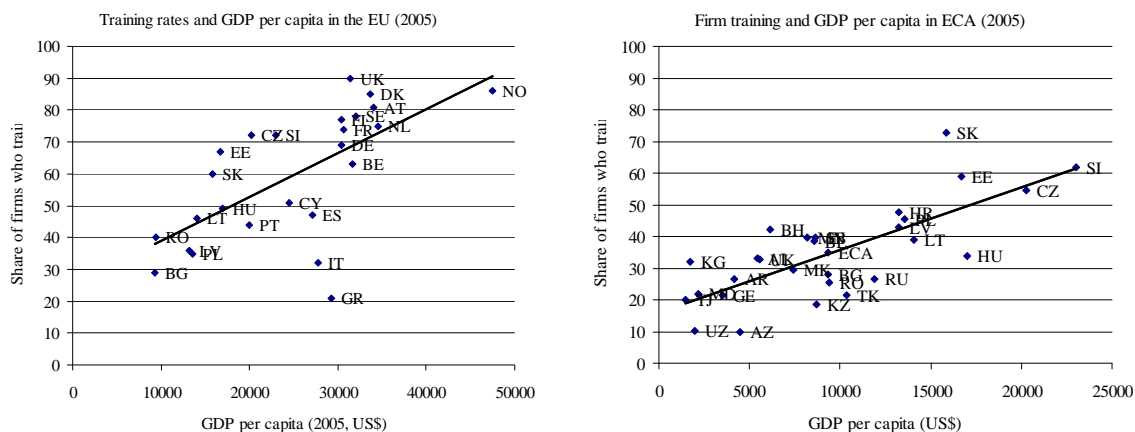
employers in the coordination and implementation of adult education and mandating financing of adult education from the national budget. In Latvia, adult education and training is regulated mainly by the Law on Education which was adopted in 1998. In Lithuania, the Law on Non-formal Adult Education was adopted in 1998.

All three Baltic states provide financing and financial incentives through budgetary resources, tax incentives and EU Structural Fund resources. Improving tax incentives as a way to motivate more training has received particular attention in recent years. For example, starting from 2009, Latvia doubled tax deductions for education and health expenditures were doubled compared to 2008. In Lithuania expenses for vocational training or studies incurred within the taxable period, can be deducted from income since 2008. In Estonia individuals have been entitled to exemption from income tax in the amount spent on training since 1999.

The Baltic states' strategic policy focus on adult education and training is paying off – the system is becoming increasingly dynamic. For example, the number of participants in adult training and retraining programs in educational establishments has sharply increased in Estonia in recent years: In 2008 in secondary specialized educational establishments alone, around 27,000 individuals enhanced their qualification levels, compared to 10,000 individuals in 2004, while around 40,000 individuals did so in higher education establishments, up from 26,000 in 2004 (Statistics of Estonia). With participation rising, the policy focus now needs to shift on improving the quality of the services provided, including through better qualifications of instructors, and enhancing relevance of teaching program content for market needs.

Firms in more advanced economies in ECA are likely to train more than those in the less advanced. Figure 5 presents firm training rates and GDP per capita for all EU Member States and non-Member States that were captured in the 2005 CVTS (left panel) and the 2005 BEEPS (right panel). There appears to be a positive correlation between GDP per capita and adult training in firms – firms in richer countries are more likely to train than those in poorer countries. The reasons for this are several. Production in more advanced economies is of a higher technology order and requires more skills. Consistent with this, firms in more advanced economies have to compete closer to the technological frontier and require more skilled, and more regularly re-skilled workers. More advanced economies also tend to be less agricultural and have on average larger firms – which, as will be explained below, are more likely to train than smaller firms.

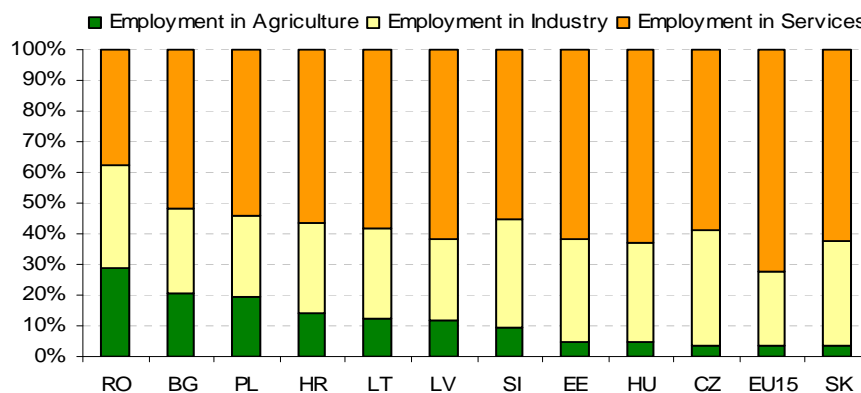
Figure 5: Relative to their GDP per capita, many ECA countries in the EU train more than their neighbors



Source: Staff calculations based on BEEPS 2005 and CVTS 2005

Given the lower level of income in the new Member States, the extent of adult training there is relatively high compared to many advanced EU economies. Figure 5 (left panel) shows that many EU10 countries, relative to their GDP per capita level, train more than many old EU Member States. In other words, one would not expect them to train more given that they are less rich, or advanced, economies than most of their EU neighbors. Slovakia, Slovenia, the Czech Republic and Estonia, who also have the highest participation in worker training among ECA economies in absolute terms in the BEEPS and the CVTS samples, are well above the regression line, indicating that they train substantially more than would be predicted by their lower level of GDP per capita. Figure 5 (right panel) presents the same exercise using the BEEPS 2005 which includes all ECA countries except Turkmenistan and Kosovo. It confirms the leading role in adult training of Slovakia, Slovenia, Estonia and the Czech Republic, but it also reveals that, relative to their GDP per capita levels, other countries are performing well compared to their neighbors, for example Bosnia and Herzegovina and Kyrgyzstan.

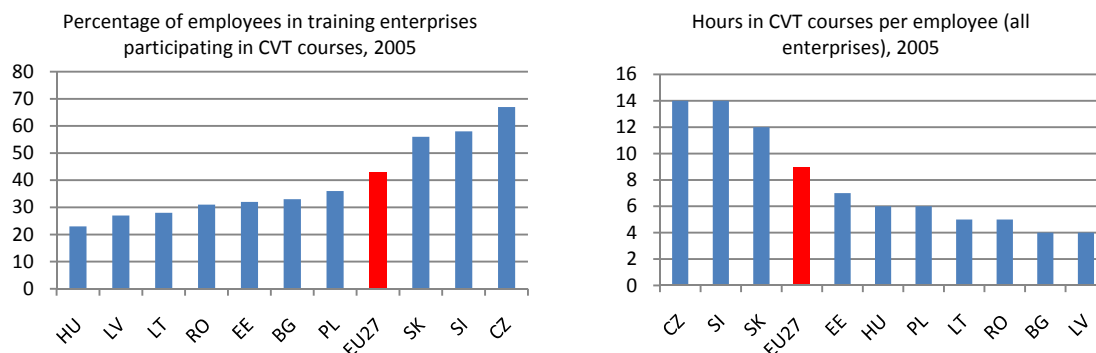
Figure 6: Sectoral employment differences may also explain differences in training participation across countries, Share of employment by sector, 2006



Source: Eurostat, CSOs, EC, staff calculations, as first presented in World Bank (2007). Notes: Romania data for 2004

Differences in training rates may also be partly explained by differences in the sectoral structure of employment. There is evidence that training decisions vary across workers in different sectors. For example, a survey of individuals aged 25-64 in Lithuania in 2006 showed that enhancement of education and qualification levels was more popular among employees in the service sector – 29 percent participated in training within 12 months prior to the survey, followed by the employees in industry and construction, 25 percent, and education, 20 percent, while only four percent of employees in agriculture received training. While over half of senior officials and enterprise management received training, blue-collar workers accounted for the smallest portion of trainees (19 percent) (NVL, 2006). Figure 6 presents the sectoral breakdown of employment across the new EU Member States and Croatia, revealing large differences in the size of the agricultural employment share. Romania, Bulgaria and Poland, countries with relatively low CVET participation, retain relatively large shares of agricultural employment. It may also explain differences in CVET participation across the Baltic states.

Figure 7: Even in firms that train not all workers participate in training, and actual training hours are often short



Source: CVTS 2005

While it is possible to analyze comparative levels of training across countries, there is no satisfying framework which would allow determining whether countries educate and train enough or not. There are a number of further caveats to the above analysis. First, while the recent cross-country data on adult education and training marks a big step forward, it remains relatively weak⁵. Second, with the exception of the AES, the available data does not shed much light on the length, nature or, most importantly, quality and relevance of education and training⁶. Policymakers in the Czech Republic recognize that, with adult education and training participation rates already high, the challenge now is on raising quality and ensuring relevance. Third, several country studies have shown that while the share of firms who train may be high in many ECA countries, the share of actual workers in training is low. For example, a recent enterprise survey in Russia revealed that while 58 percent of firms in a pooled sample of small, medium and large firms conducted training, only 7.7 percent of skilled and 1.4 percent of unskilled workers actually participated in training (Lukyanova et al., 2007).⁷ Figure 7 (left panel) presents data from the EU on the percentage of workers participating in continuing vocational training in those firms that train. For example, while in the Czech Republic close to 70 percent of workers in training firms participate in continuing vocational training, the equivalent share in Hungary is less than 25 percent. The right panel shows that with the exception of the Czech Republic, Slovakia and Slovenia, workers in ECA countries participate fewer hours than their EU peers. This implies that the productivity effects from worker training may be lower in ECA countries than they could be, when comparing with Western European countries.⁸

Retraining for the unemployed

Retraining of the unemployed is an important part of active labor market programs in many ECA countries, yet covers few unemployed. The introduction of passive and active employment policies in ECA at the outset of the transition has given prominence to interventions to retrain and re-qualify individuals who lost their jobs as part of privatization and enterprise

⁵ This is in particular true for the BEEPS whose true representativeness of the enterprise sectors in captured countries is doubtful.

⁶ There is also no information about informal education and training.

⁷ The higher incidence of training among skilled than non-skilled workers is consistent with evidence from across ECA and the OECD.

⁸ Obviously the productivity effect also depends on quality and relevance of the training which is not captured here.

restructuring. Today, retraining programs are a central component of ALMPs across ECA. While there is no comparative data across all of ECA, Table 1 shows that training participants represent sizable shares in overall participants of ALMPs in the EU10 countries. The participant shares are sometimes even more than 50 percent and similar to the EU27 average. However, with ALMP participation in the EU10 lower than in the rest of the EU, the share of training participants among the total unemployed is rather low – and substantially lower than EU27 averages, with the exception of Slovenia. This suggests that while retraining is recognized as a key intervention to promote employment, the actual use of the measure appears limited.

Second chance education and training remains limited in ECA, and only now slowly being introduced in the more advanced countries. There is no cross-country data on participation in second chance education and training programs that would allow a serious analysis. However, anecdotal evidence suggests that remedial basic education and training represent a small share of retraining programs of the public employment services, coupled with NGO-provided social inclusion activities. Several new EU Member States have launched second chance programs, including on literacy and functional literacy, as part of the programming of European Social Fund resources.

Table 1: In the EU10 re-training looms large in ALMPs but covers few of the unemployed, Training participant shares in ALMP participants and total unemployed, 2006

	Share in ALMP participants	Share in total unemployed
EU27	33.6	19.8
BG	10.9	3.8
CZ	12.6	2.0
EE	58.4	2.8
LV	52.3	6.3
LT	41.0	7.9
HU	19.9	4.4
PL	21.8	4.2
RO	18.0	2.1
SI	56.8	19.7
SK	1.6	0.6

Source: Staff calculations based on Eurostat. Note: Unemployed based on LFS

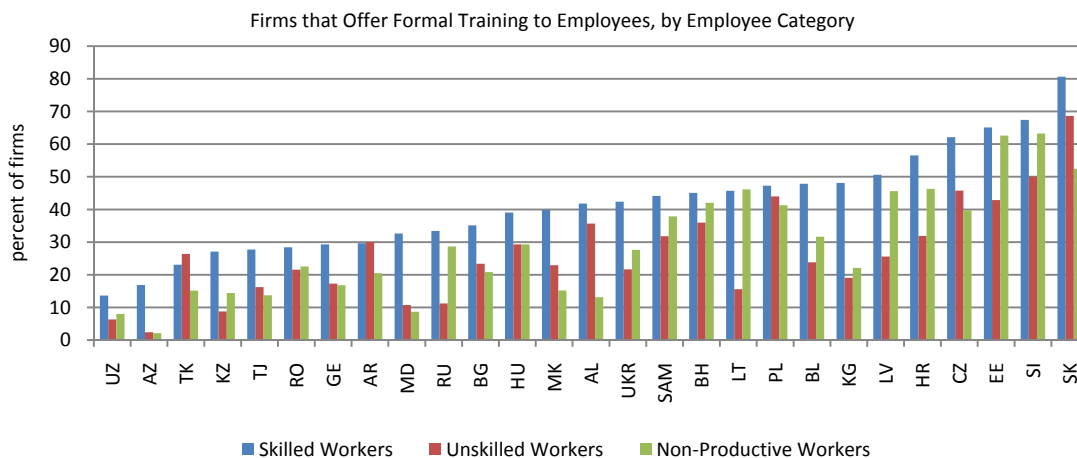
Publicly financed retraining for the unemployed has helped build a market for adult education and training in some countries, also catering to the demand for CVET. For example in the Czech Republic, the Labor Office helped build a private adult education and training market in the 1990s by outsourcing training for the unemployed to largely private providers. The choice of relying on competitive bidding sent a strong message of competition to the emerging education and training market and triggered restructuring of formerly public providers as well as substantial new market entry. This considerably larger and more competitive education and training market has then also benefited firms' and employed individuals' demand for CVET.

Understanding patterns of adult education and training in ECA

Existing evidence from around the world suggests that participation in adult education and training is concentrated among those workers with the best labor market opportunities. Adult education and training is typically more prevalent among the youth rather than older individuals, more popular among individuals with higher levels of education than those with less education and among men rather than women (OECD, 2005). While the reasons for this may be

obvious – for example, learning begets learning – this is not necessarily a satisfactory outcome: Arguably, adult education and training can play the role of helping less skilled workers advance and keeping older workers in the labor force for longer. How does adult education and training in ECA compare with this global picture? The answer: The ECA picture is broadly consistent, and the next section discusses how.

Figure 8: While firm training in ECA focuses primarily on the skilled, many less-skilled are benefiting as well, Share of firms offering formal training to employees by employee category, 2005

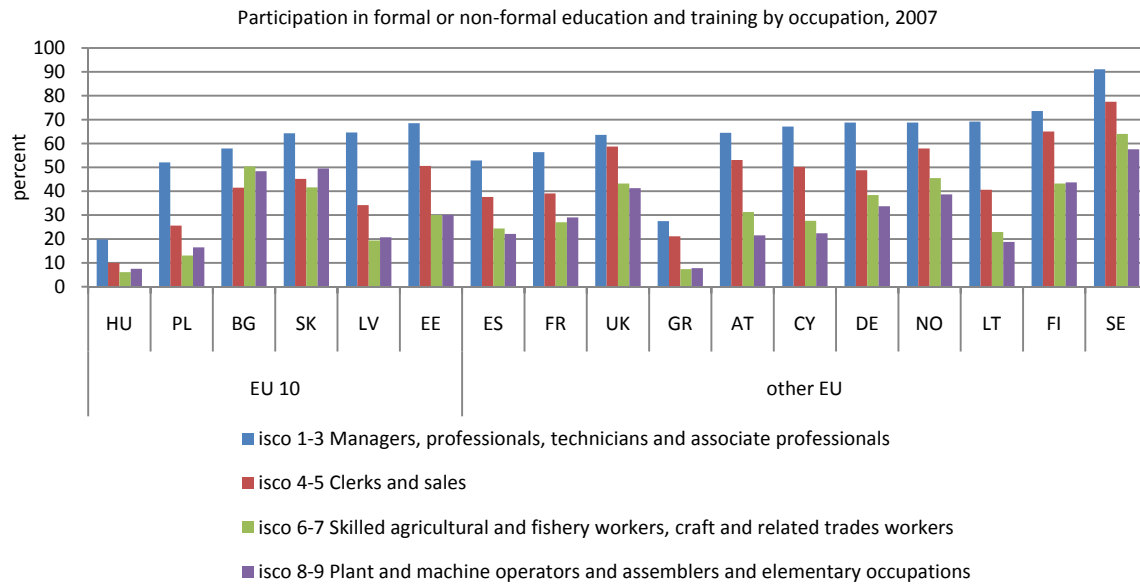


Source: staff calculations based on BEEPS 2005

Skilled workers in ECA countries are more likely to participate in training than other workers in the same firm. Figure 8 presents BEEPS 2005 data and shows that the overall firm-based worker training data masks substantial differences in training rates between skilled and non-skilled and so-called non-productive workers, with the latter two having generally a lower participation than skilled workers. This finding is consistent with the patterns of adult education and training around the world. Individual data from the AES confirm the inequities, and suggest that in certain dimensions, adult education and training is more uneven in new EU Member States compared to the rest of the EU. However, despite the unevenness, it is worth noting that many less skilled workers are also benefiting from training.

In most EU Member States, ECA countries included, adult education and training is concentrated among employees in managerial occupations. Figure 9 presents training rates by occupations from the AES, demonstrating that in all countries managers and workers in advanced occupations are most likely to participate in training. In a way, this is the flip side of the concentration of adult training among the most educated as presented above. ECA countries in the sample follow the overall pattern of other EU Member States.

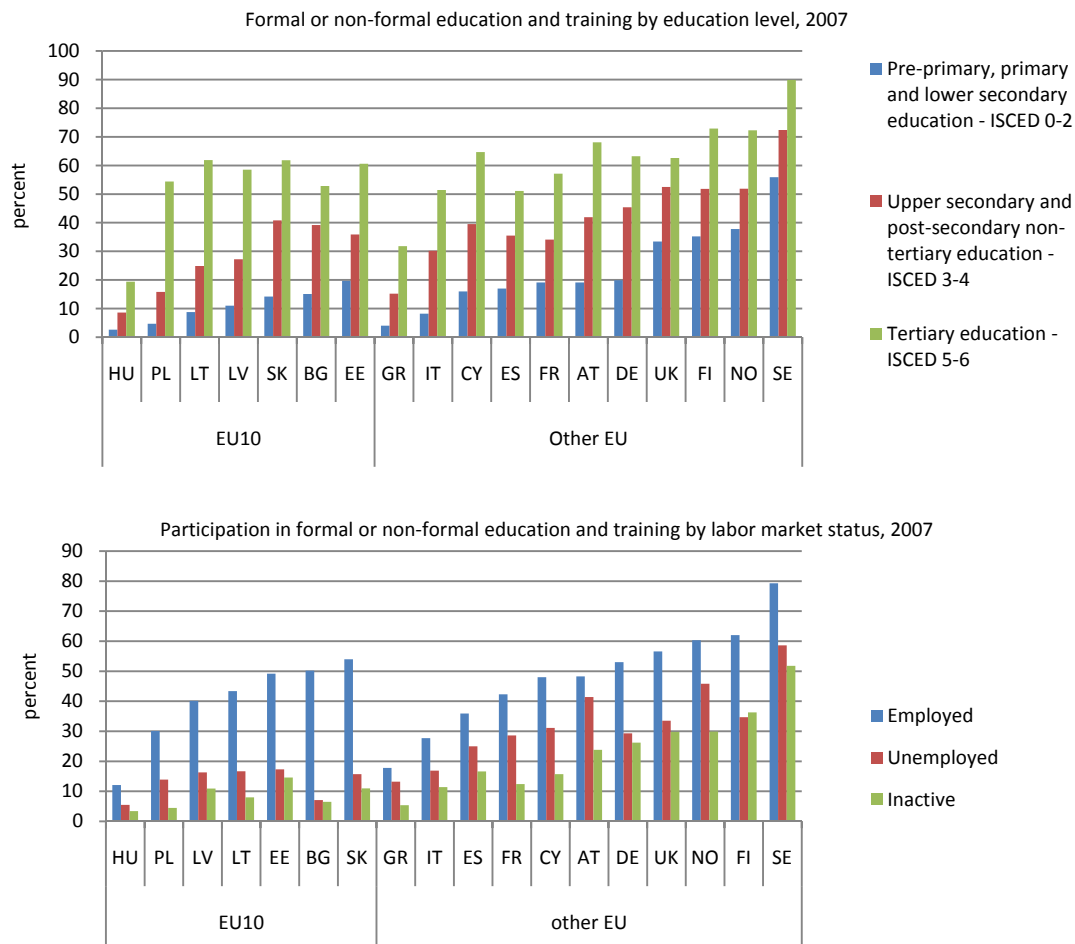
Figure 9: Education and training are predominantly for managers,



Source: AES 2007

EU10 countries appear to have less participation in second chance education and retraining for the unemployed than older EU Member States – as evident in a relatively lower participation among unemployed and low-skilled workers. There is no ECA-wide individual worker-level data at this point which would allow breaking down training participation by worker characteristics. However, for select EU Member States, the new AES data allow to do that. Figure 10 presents evidence from the 2007 AES on participation by education level and employment status. EU10 countries appear to have a lot fewer individuals with lower levels of education enrolled in adult education and training than the old Member States (see Figure 10, top panel). Equally, the EU10 appear to have fewer inactive workers and unemployed workers who participate in non-formal education and training than their EU neighbors (middle panel). It appears, therefore, that second chance education programs – a key tool to help early drop-outs and people who have lost their jobs in mid-career back into the labor market and improve their productivity – form a relatively small part of the adult education and training system in many ECA countries.

Figure 10: Education and training in EU10 countries is more uneven than in the old Member States and less focused on disadvantaged workers, while it is equally biased to the youth



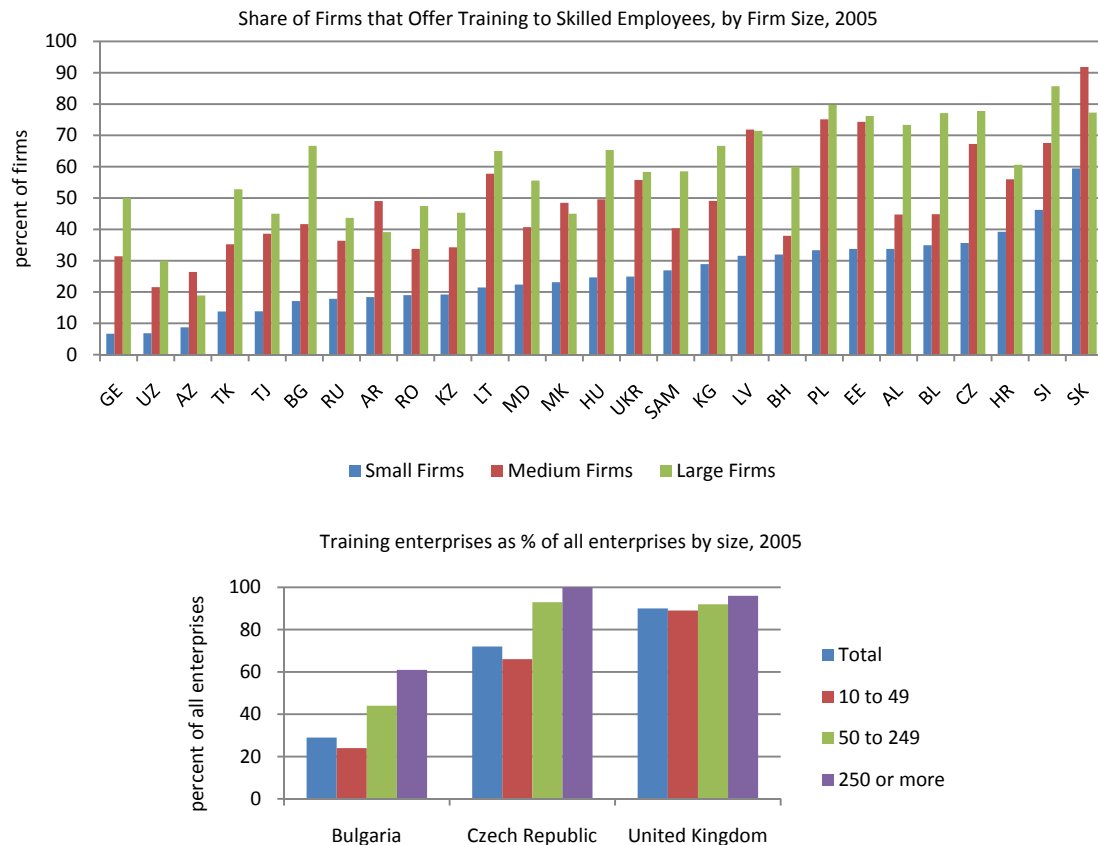
Source: EU AES 2007

The extent of training varies between large and small firms, and that variation tends to be larger in ECA than in the advanced EU countries. Large firms are substantially more likely to invest in worker training than small firms, a finding which is in line with countries around the world. This may be one explanation for the relatively lower adult training rates in many ECA countries compared to more advanced economies: The structure of the enterprise sector in most ECA countries is different from advanced economies given the fact that the vast majority of firms are small firms – and small firms are less likely to train than large firms. It also, however, points towards the need for programs to promote adult training to focus particularly on small and medium-size enterprises (see section 4 below). Figure 11 presents data from the 2005 BEEPS which confirm the internationally well-established picture of large firms providing more training than small firms⁹. Figure 11 (bottom panel) presents data from the 2005 CVETS on the best and least well performing ECA countries in the survey, Bulgaria and Czech Republic and compares it with the best performing EU country in the CVETS sample, the United Kingdom.

⁹ However, there is an important caveat: First, the BEEPS sample tends to over-represent large enterprises. Second, limited sample size implies that the large firm data in the chart are not fully representative.

Both Bulgaria and the Czech Republic display a wide gap in the share of training companies between small and large enterprises, if at different levels, while the United Kingdom is an outlier in displaying hardly any divergence between small and large firms.

Figure 11: Worker training participation varies by firm size



Source: BEEPS 2005 (top panel), EU CVTS 2005 (bottom panel)

Adult education and training systems in ECA rely both on private and public providers, yet the private sector appears to dominate, at least in the EU10. As noted above, adult education and training systems in ECA are emerging from a legacy of training institutes linked to former state-owned enterprises. While existing cross-country surveys do not allow shedding light on the size of the “market share” of public and private providers, it is clear that after the post-communist legacy public or former state-owned training institutes remain prominent in many ECA countries. Moreover, public primary and secondary schools and tertiary institutions have played an important role. For example, Table 2 presents the picture from Slovenia where enterprise training centers and specialized institutions – mostly private institutions, limited liability companies, partnerships and others – take the lion’s share of enrolled and graduating participants. However, Slovenia’s people’s universities as well as adult education units in public primary and secondary schools – largely public – account for a sizable share of adult education and training provision (Klužer, 2007). In the Czech Republic, the adult education and training market has become predominantly private after the authorities deliberately shied away from creating or maintaining a public provider network in the early years of transition. The Czech authorities are now promoting greater participation of public VET schools in the adult education

and training market, in order to stimulate greater labor market orientation of VET schools: VET schools can apply to become designated “lifelong learning centers” empowered to compete in the adult education and training market and receive training for their staff.

Table 2: Continuing education providers, courses and learners, Slovenia, 2005/2006

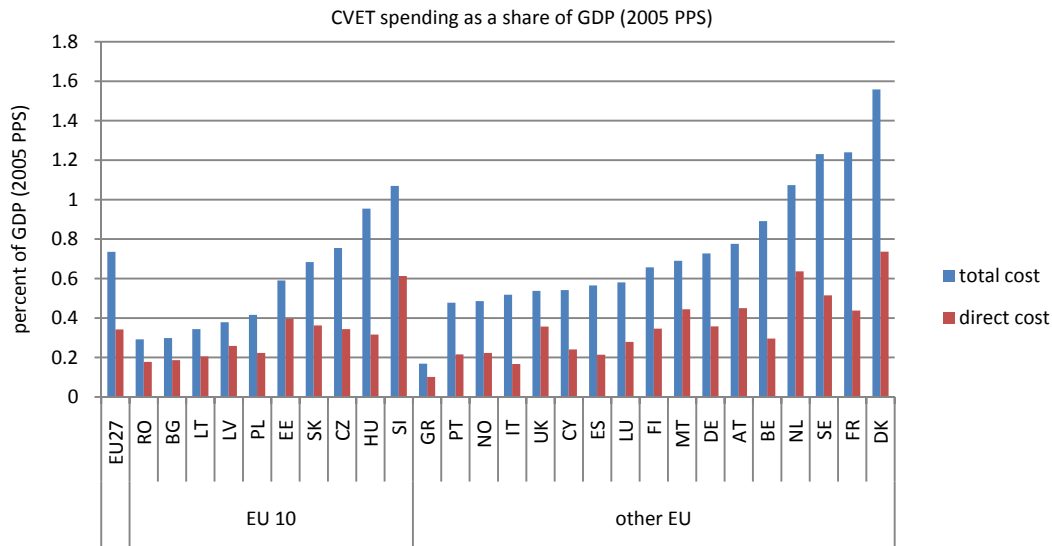
	<i>Number of Institutions</i>	<i>Number of Courses</i>	<i>Enrolled</i>	<i>Certified</i>
People's universities	34	2,423	30,546	15,632
Other specialized institutions	130	7,508	79,441	34,243
Adult education units in schools	49	936	15,809	10,543
Enterprise training centers	36	5,379	113,143	32,132
Chamber training centers	2	240	9,647	3,991
Professional associations	11	533	9,304	1,144
Driving schools	75	1,612	20,216	7,847
Other (e.g. libraries, social welfare centers)	20	1,072	23,684	411
<i>Total</i>	<i>357</i>	<i>19,703</i>	<i>301,790</i>	<i>105,943</i>

Source: Statistical Office of the Republic of Slovenia (2007)

Spending on adult education and training in ECA

Spending on adult education and training in the EU10 appears to amount to a sizable share of GDP, and most of this spending is on CVET and appears to be private. Available data is limited to arrive at a clear overall estimate of spending on adult education across ECA. However, the EU CVTS includes data on direct as well as labor cost for staff time used for formal and non-formal CVET per participant which can be used to estimate overall expenditure. Figure 12 presents such estimates of CVET spending for EU Member States in 2005, including ECA countries, as a share of GDP in PPS. There are several messages from the data. First, spending on CVET represents a sizable share of GDP. It is estimated to amount to 0.3-1.0 percent of GDP in 2005 including both direct costs and labor costs, with direct costs accounting for 0.2-0.6 percent. Second, ECA countries are split broadly into two groups with Bulgaria, Romania, Latvia, Lithuania and Poland occupying the bottom end of the EU distribution in terms of spending, while Slovenia, Hungary, the Czech Republic, the Slovak Republic and Estonia are found in the top half of the distribution and with spending around or above the EU27 average. Third, in the low-spending ECA countries, the direct cost take the lion’s share in total cost, which is less the case in the higher-spending countries such as Hungary and the Czech Republic, where higher spending appears to be driven more by labor cost than direct cost. The major part of CVET spending is likely to be private, financed by firms themselves, for example through labor cost for staff time. Available data do not allow discerning to what extent this spending reflects public subsidies, for example through tax breaks.

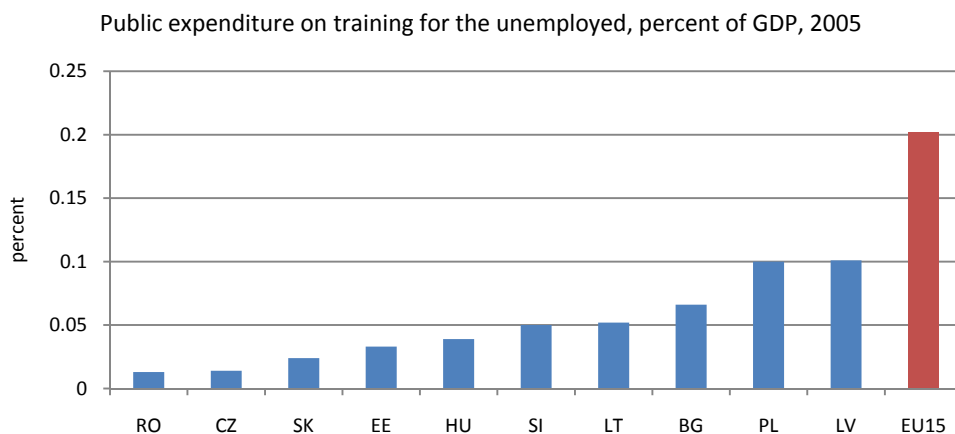
Figure 12: EU10 countries' spending on CVET represents a sizable share of GDP – both direct and labor cost, Estimated spending on CVET as a share of GDP



Source: Staff calculations based on Eurostat CVTS, LFS and National Account data; Note: calculated by multiplying expenditure per person trained (CVTS) by product of share of trained persons (CVTS) and employees (LFS).

ECA countries spend a small share of GDP on retraining of the unemployed relative to old EU Member States. Figure 13 presents data on public expenditure on retraining for the unemployed as a share of GDP in several new EU Member States and the EU15. Driven by a relatively lower participation of the unemployed in training in new compared to old EU Member States (see Table 1 above), spending as a share of GDP is also lower. While Poland and Latvia spend a considerable 0.1 percent – half of the EU15 average – Romania, Czech Republic and Slovak Republic spend less than 0.03 percent.

Figure 13: EU10 countries spend substantially less than old Member States on retraining for the unemployed



Source: Eurostat

Emerging messages on adult education and training in ECA

In summary, the following key messages on the state of adult education in ECA can be drawn from the available data:

- *The extent of worker training varies across ECA, largely according to per capita income and with a broad East-West divide:* A much smaller share of firms in less developed ECA countries, such as low-income CIS countries, are engaged in worker training than in most middle-income EU10 countries.
- *EU10 countries occupy the middle-to-bottom range among EU Member States in terms of adult training participation.* The Czech Republic, the Slovak Republic, Estonia and Slovenia, the frontrunners across ECA, have higher participation in training and a higher share of firms who provide training than many old EU Member States.
- *Adult learning in ECA is uneven.* Training rates are higher for male workers than for female workers, for skilled individuals than for less skilled, for younger than for older people, for the employed than for the unemployed and inactive and for large firms than for small firms.
- *Second chance education and training is limited in ECA countries.* While data is only available for select EU10 countries, there appears to be a lower share of disadvantaged individuals there who participate in adult education and training than in the old EU Member States.
- *Private training providers dominate in the advanced ECA countries.* There is little data on the relative shares of public and private providers of adult education and training. However, it appears that private provision has become dominant in most EU10 countries, while the public sector retains a role in the adult training market, for example through the involvement of public vocational schools and universities.
- *Adult education and training spending represents a sizable share of GDP, largely private financing for CVET and public financing for programs for the non-employed.* CVET dwarfs retraining for the unemployed in terms of participants and spending. Though data remain limited, it appears that the lion share of CVET is financed privately.

3. Barriers to expanding adult education and training in ECA

Adult learning faces a number of barriers which, despite the established considerable returns from education and training, may lead to insufficient and uneven provision. Cross-country analysis of training patterns in Europe has shown that even when controlling for observable worker characteristics, close to one half of difference in training participation is explained by country-specific parameters (Bassanini et al., 2005). Other factors, such as government regulation as well as labor, credit and product markets appear to play an important role in adult training. The economic literature has identified a range of barriers to adult education and training, suggesting that the rates of participation of individual workers as well as the share of companies who train are below the socially optimal level. In other words, each individual worker and company manager makes the rational and optimal decision given the constraints he or she faces, while the sum of these decisions represent a worse outcome than desirable for the country. This section lays out the barriers to adult training and education in ECA. Chief among them appear to be lacking information – which is limited in particular for the low-skilled – the

costliness of training, time constraints due to work and family reasons and an under-supply of training providers.

Theoretical foundations

Externalities may hold back education and training decisions by both firms and individuals.

Economic theory suggests that perfectly competitive labor markets result in optimal training, with firms paying for firm-specific skills and individuals for general skills¹⁰. However, this changes in imperfectly competitive labor markets. On the one hand, employers may also pay for general and transferable skills courses when they have wage-setting power in the labor market (“oligopsony”) (Bassanini et al., 2005). Compressed wages allow employers to recoup some of the training costs by paying the worker less than the full marginal product of labor after the training, in particular when the worker faces imperfect information and a lack of certification (Acemoglu and Pischke, 1998 and 1999)¹¹. On the other hand, however, even in an oligopsonistic labor market there is a risk of under-provision due to externalities – firms will not internalize, or in other words enjoy, the full benefits from training because some of it will accrue to future employers or society as a whole.

Firms will be more cautious in investing in training the higher the risk of the worker leaving the company soon after training (or the “poaching” of trained workers), the weaker the labor contract and the higher the risk of the worker being able to negotiate higher wages as a result of training (the “hold-up” problem). This is particularly true in economies and sectors with high labor turnover and tight labor markets; and these risks are lower where job turnover is low, labor markets are slack and rigid and employee protection is high.¹² At the same time, workers will under-invest and be less interested in training if their post-training wages do not reflect the true marginal product. This is in particular true for older workers, who may not reap the lifetime rewards. While there is no ECA firm survey evidence on the externality barrier, anecdotal evidence suggests that this is an important concern, in particular in those countries which, until recently, were facing a very tight labor market.

Box 3: General and Firm-Specific Training

Economic theory distinguishes between two types of training, general and firm-specific, and the way they affect incentives and consequently the provision of training. General skills refer to skills that can be equally useful to many firms, while firm-specific skills refer to skills that are only useful to one specific firm. Firm-financed general training produces a positive externality which can be of use to outside firms not investing in training themselves. This externality, if not internalized by the market, can result in suboptimal provision of training. On the other hand firm-specific skills do not generate such externalities. Hence, there is a likelihood that general skills will be under-provided in the market place, suggesting the need for government intervention.

¹⁰ Becker (1962) provides the basic theoretical framework for firm training in perfectly competitive labor markets. Becker and others recognized that even when labor markets work well, under-provision of training is possible if other markets (for example capital markets) do not exist or do not work effectively or if individuals have incomplete information.

¹¹ There is some international empirical evidence that wages are lower than marginal product of labor after the training, and that wage premia for training are larger for the next compared to the current employer (see above). (Dearden et al., 2000; Barron et al., 1999).

¹² Recent empirical analysis suggests that a stricter labor code is associated with a higher investment by firms in employee training, although the effect is quantitatively small and heterogeneous across types of regulation. See Almeida and Carneiro (2008). Their findings also suggest that more temporary contracts and a simultaneous increase in the protection of regular workers reduce the incentives of firms to invest in the human capital of their employees.

Interestingly, in firms in advanced economies the emphasis is increasingly on skills that can be categorized as general, reflecting desired competencies which encourage workers to work autonomously, use tools interactively, and function in socially heterogeneous groups. Such skills include mathematical, language, literacy and problem solving skills as well as interpersonal and methodological skills (World Bank, 2003).

Individuals and firms may not be able to generate the necessary funds to finance training.

First, training can be financed through lower wages for workers during training periods. However, employed individuals may not be able to cover the shortfall through borrowing because they cannot use their human capital as collateral. Firms may cover the cost by paying workers wages above their marginal product for the period of training and recoup this by paying wages below the marginal product of labor after training. However, they can only be expected to do so if they are certain that the worker will remain in the company. Moreover, firms may not be able to raise financing in the capital markets themselves, in particular small firms with limited physical collateral.

Individuals and firms may opt out of training because they lack basic information – first, about future growth areas in skills, future production niches in the market or even the availability of new technology. Second, employers and employees may lack information on the availability and quality of education and training providers. In the absence of full and symmetric information on quality, training may not be fully “contractible” (quantity is, but not quality) and provision not easily verified. Third, a lack of recognition or certification of learning will reduce an individual’s interest in education and training, because they cannot be sure about whether they can demonstrate their raised productivity in the absence of a system of recognition and certification of learning. Fourth, employers and individuals may not be fully aware of the returns from training in terms of higher worker productivity due to lack of information about type and area of training and due to lack of managerial skills in developing economies, for example in small and medium-size enterprises

Imperfect product markets may hold back training decisions. More competition in product markets, as a result of deregulation, has been found to have a strong effect on more training (Bassanini et al., 2005). This is in line with theoretical models which suggest that training benefits from product market deregulation in two key ways: First, deregulation in product markets increases productivity through forcing efficiency increases and innovation in firms. If innovation and skills are complements, then more innovation will trigger more investment in skills (Acemoglu, 1997). Second, deregulation may also raise training investments by raising the risk of worker dismissal, thereby reducing the wage bargaining power of workers (Bassanini et al., 2005).

Theoretical predictions of barriers to training are well supported by international empirical evidence. In summary, economic theory predicts that underinvestment in training can arise from (i) imperfect labor markets, including the fact that employers and employees will not reap the full benefit of their investment in training as well as the unenforceability of contracts, (ii) lack of credit and financing sources, (iii) a lack of information and knowledge. Figure 14 summarizes evidence from a host of international investment climate surveys. In practice several studies have found that workplace training is predominantly financed by employers, and employees contribute only a small share. Moreover, there is only very limited and not very robust evidence of workers effectively co-financing training through lower salaries (Bassanini et al., 2005). It appears, therefore, that firms are the main financing source of training.

Figure 14: International evidence suggests that limited resources, the cost of labor turnover and lack of knowledge are key barriers to training



Source: Batra and Stone (2004), based on data from the World Business Environment Survey, an enterprise survey in 28 countries between 1998 and 2000

Empirical evidence from the EU10

The limited data available on adult education and training in ECA – from the EU10 – suggest that countries face similar barriers as identified in the international literature. However, it appears that several are more binding than in non-ECA countries in the same sample. Chief among them appear to be lacking information – which is limited in particular for the low-skilled – and the costliness of training in terms of direct cost and opportunity cost in terms of time lost for work and leisure. Moreover, compared to non-ECA countries, there is evidence for a relative under-supply of training providers.

Table 3: Career prospects and job requirements drive education and training decisions, Main reasons for participating in non-formal education and training, 2007

	<i>Slovakia</i>	<i>Sweden</i>	<i>Latvia</i>	<i>Lithuania</i>	<i>Bulgaria</i>
Be less likely to lose job	26.6	8	27.7	26.7	7.4
Obligated to participate	66.1	36.4	33.7	22.3	7.4
Increase possibilities of getting a job or changing a job/profession	23.1	6.5	17.8	14.9	7
Get knowledge/skills useful in everyday life	30.2	41.8	58.6	36	13.4
Increase knowledge/skills on an interesting subject	34.6	59.3	43.8	43.1	12.9
Obtain certificate	19.2	8.9	37.8	35.3	11.5
Do job better and/or improve career prospects	63.1	61.8	74.7	66	25.8

Source: AES 2007

Why do adults train in the EU10? Career considerations and job performance appear to be the most important motivations to seek adult education and training. Table 3 presents responses from the AES for select countries, including Sweden which scores highest in terms of training participation among all countries in the sample. Across the board, the main motivation for seeking non-formal training is to improve job performance and career prospects. However, there are variations among the second-most important reasons. Individuals in Slovakia, which

has one of the highest participation in adult education and training in ECA, report that the obligation to undergo training is as important as the career consideration – much more than in Sweden, Lithuania, Latvia and Bulgaria. In comparison, Swedes, Lithuanians and Latvians cite as key the motivation of increasing knowledge in an interesting subject.

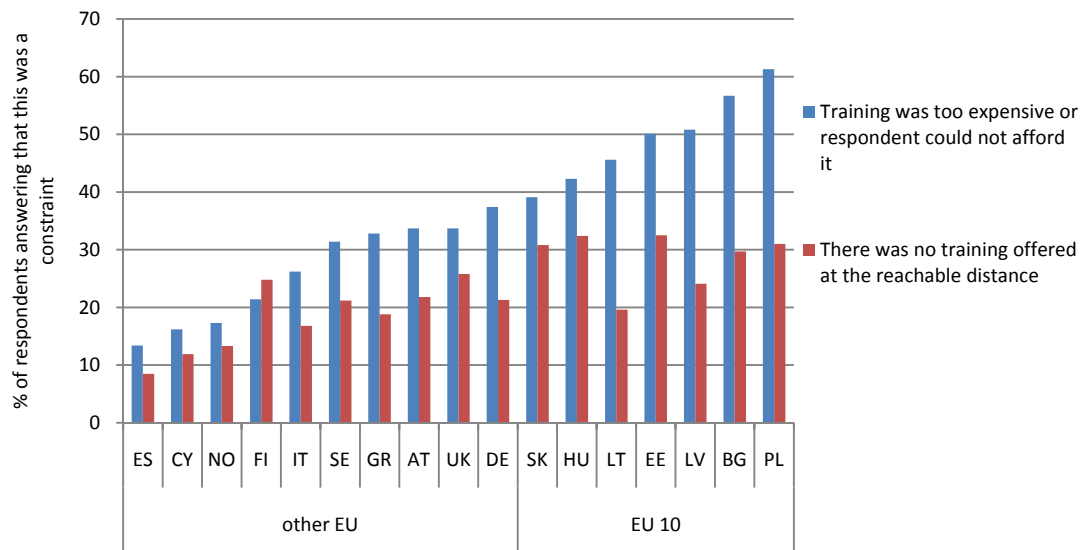
Table 4: Cost is a dominating barrier to adult education and training in many ECA countries, Most important obstacles for respondents who did not participate but wanted to, 2007

	<i>Bulgaria</i>	<i>Estonia</i>	<i>Latvia</i>	<i>Lithuania</i>	<i>Poland</i>	<i>Slovakia</i>
Respondent did not have the prerequisites	7.1	0.8	1.3	0.7	3.5	19.1
Training too expensive or respondent could not afford it	43.4	26.9	28.5	29.3	35	19.8
Lack of employer's support	1.6	1.9	5.6	4.6	5.9	9.9
Training conflicted with the work schedule	14.4	15.4	18.6	26.4	15.7	19.5
No time because of family responsibilities	11.3	16.8	23	15.4	14.5	15.6
No training offered at the reachable distance	10.3	7.5	4.7	0.8	10.7	7.3
Not confident with the idea of going back to something that is like school	1.4	0.7	1.5	5.6	3.7	0.3
Health or age	6.4	1.5	6.1	7.6	4.5	5.5
Other	4.1	0.8	10.8	9.6	6.4	2.9
No answer	0	22.2	0	0	0	0

Source: AES 2007

The main barrier to education and training for those who do not participate is cost. Table 4 presents the main barrier to participate in education and training by those individuals surveyed who did not participate. First, it is instructive that a lack of employer's support and a concern of lacking pre-requisite do not seem to be important barriers, with the exception of Slovakia. The key barrier is cost, followed by time constraint, be it for work or for family reasons. This has policy implications because education and training opportunities need to be available to adults through distance or open learning delivery. In some of the surveyed EU10 countries there is a lack of education and training providers in the immediate vicinity, signaling an under-supply of providers. Likewise, in some, though not all, ECA countries in the sample a lack of prerequisites for education and training has been mentioned. The relative importance of reasons varies by age group across all participating countries: For example, cost is a more important barrier for younger (between 25 and 34) compared to older individuals, and the same is true for the difficulty of combining training with family responsibilities. The cost of education and training is also relatively more important barriers for the EU10 compared to the old EU Member States in the sample (see Figure 15).

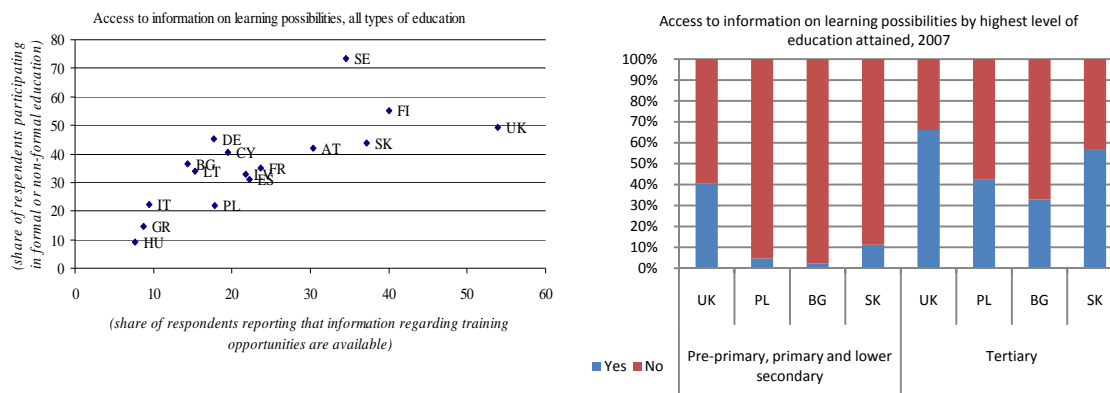
Figure 15: Cost and limited supply of providers are more important barriers to an expansion of education and training in the EU10 than elsewhere



Source: Staff calculations based on AES 2007

A lack of information on education and training opportunities is another key barrier. Figure 16 (left panel) reveals a positive correlation between education and training incidence and information available. While not achieving the highest participation rates, the United Kingdom does best in terms of making information on education and training available to workers. Apparently, one key driver is that not only well educated individuals, e.g. with tertiary education, find relatively easy access to information, but also many less skilled do so (right panel). Forty percent of workers with lower secondary education or less reported that they had access to information on learning opportunities, while only less than 5 percent did so in Poland or Bulgaria and about 11 percent in Slovakia. This particular information barrier for the less educated may be one of the key drivers of their relatively low participation in many ECA countries. At the same time, the UK and Slovakia lead Poland and Bulgaria substantially also in terms of access to information among university educated workers.

Figure 16: Information is a key driver of education and training decisions, and it is limited for the low-skilled in many ECA countries



Source: AES 2007

In summary, the following main barriers to adult education and training can be identified for ECA – barriers related to

- *costliness of education and training*, both in terms of direct financial cost and opportunity cost in terms of working time and leisure time lost;
- *lack of information* on learning opportunities which appears more binding for less skilled individuals including the unemployed; and
- in some, but not all, cases, a relative *under-supply of providers* and *lacking preconditions* for education and training.

Additional barriers may lie in a lack of high quality and relevant training. It is worth noting that available data do not allow analysis of quality and relevance of programs and hence offer no picture on the extent to which they play a role in explaining training decisions.

4. Designing successful adult education and training systems

Advancing adult learning in ECA relies on new partnerships between the public and the private sector and a framework of autonomy, accountability and strategic use of government financing. This section lays out a policy framework for advancing adult education and training across ECA countries, including through addressing market failures. It argues that, as a precondition, a successful adult learning policy requires the design of a policy framework based on a high degree of policy coordination and partnerships between government agencies and the private sector. It is particularly important for such a policy framework to give the demand side of education and training—businesses and individuals—a strong say in determining adult education and training policy. Once a solid policy foundation has been created, governments should steer adult education and training like the rest of the education system – through promoting autonomy and accountability and strategic use of government financing. In terms of tools, high quality and relevant adult learning opportunities rely on (i) sound regulation and quality standards to promote autonomy and accountability—largely missing in all but a few ECA countries—as well as recognized qualifications with certificates for participants and (ii) financing with incentives to promote a competitive market for adult education and training and to overcome the identified barriers associated with providing adult learning. Each of these policy levers relies on addressing the information barriers related to education and training through both generating relevant information and disseminating it effectively.

Private investments lie at the heart of adult education and training, but governments can provide an enabling environment for private investment through careful regulation, while providing some financing to overcome market failures associated with adult learning. Firms and individuals drive education and training decisions, not the government. The main motivation for the decision of firms and individual to invest in training comes from the expectation of higher wages and greater profits as a result from additional skills. At the same time, the government, recognizing the social returns as well as the overall economic benefit from more human capital for economic growth and income convergence, should provide an enabling environment for more private investment through regulatory intervention aimed at facilitating the flow of information and to ensure quality. Moreover, careful government financing and regulation can help overcome some of the market failures associated with adult education and training, such as externalities, credit market failures and information failures.

The role of the government is different for CVET for the employed and retraining and second chance education for the non-employed. In the case of *continuing vocational education and training*, returns are mainly of a private nature, and hence private investments are at the center of the education and training market. The role of government consists mainly of providing a conducive environment for private investment decisions through sound regulation and provision of information. The key for the government is not to stand in the way of private decisions and to allow the market for adult training and education to build. Complementing this, select financial incentives for more private investment can be targeted to both firms and workers. In the case of *requalification and retraining of the unemployed and second chance education* the government has a more central role in financing, given that the returns are predominantly of a social nature and credit constraints are more pronounced. Equally, the government needs to promote information and provide sound regulation, including certifying programs and assessing quality – which is arguably even more important here given that training and education are funded by tax payers' money.

While coordination as well as government regulation and financing can stimulate the demand for education training, it is important for the supply to be free to respond to shifting demand. Modernizing adult education and training in the region will require a shift away from government-defined programs towards a well-regulated market of private and public providers that deliver training services to both working and unemployed adults. This is why successful ECA countries, such as the Czech Republic, privatized or closed public training providers at the start of the transition and allowed a private training sector to emerge, while ensuring that remaining public providers, such as vocational education and training or tertiary institutions, participate equally alongside private providers in a competitive market.

Getting a solid policy and institutional foundation for adult learning

Advancing adult education and training requires—as a precondition—a high degree of policy coordination and partnership between government and private sector in which the private sector has a powerful voice. This is for a number of reasons. Adult education and training is a relatively new concept in ECA with relevance for education systems and labor markets and, in extension, to countries' productivity and growth agenda. It requires finding a joint understanding and language among a multitude of heterogeneous players, a common strategic objective and solid communication channels. On the government side it requires increased coordination between the Ministry of Education, the Ministry of Labor, and the Ministry of Finance as well as other relevant government agencies such as the employment services. Because of the regional nature of industry and unemployment in many countries, regional governments often play an important role. Equally important is governmental coordination and partnership with labor market actors – employers and industry associations, employee representatives, social partners – as well as existing public and private providers of education. Experience from a range of ECA and non-ECA countries suggests that creating functioning policy coordination mechanisms for adult education and training in which the private sector has a real voice is not trivial – and takes time.

A useful first step for policy coordination and partnership is the elaboration of a coherent strategy for adult education and training as a basis for a sound legislative and regulatory framework. The European Union has advised Member States to develop and implement strategies on lifelong learning to advance the education and training dimension of the Lisbon Jobs and Growth Strategy and its successor, the Europe 2020 Strategy. The new Member States

have been following with the adoption of such strategies since 2005. For example, Box 4 summarizes the strategic directions of the Lifelong Learning Strategy of the Czech Republic. The experience from EU and OECD countries suggests that a promising first step is the establishment of a multi-stakeholder commission on adult learning tasked with advising on the drafting of a strategy on adult learning. Such commissions typically convene national and regional stakeholders, including key government agencies and private sector and trade union representatives. In drawing up a strategy on adult learning, the commission's tasks usually involve taking stock of existing structures related to adult learning—and making them relevant to the current needs of labor markets and of individual learners—rather than simply developing parallel systems.

Box 4: Guiding the expansion of adult education and training: the Lifelong Learning Strategy in the Czech Republic

After consultation with a wide range of stakeholders, the Czech Republic adopted a Lifelong Learning Strategy in 2007 which includes a prominent section on further education, or adult education. Building on an analysis of strengths and weaknesses, it identifies seven strategic directions.

- *Recognition of prior learning* through the Act on the Recognition of the Results of Further Education, with the elaboration of a National Qualification Framework, qualifications standards, evaluation standards and authorization of verification of professional qualifications;
- *Promotion of equal opportunities* in further education, particularly for disadvantaged groups through financial and non-financial instruments, including information and counseling services;
- *Development of functional literacy*, including the ability to use information technology, language skills and other general behavioral skills;
- *Introduction of a system of labor market monitoring*, evaluation and forecasting to harmonize the educational opportunities with socio-economic and labor market developments;
- *Stimulation of demand for lifelong learning* through elimination of financial and non-financial barriers among individuals and employers, e.g. counseling support, assistance services and the promotion of systems of human resource development in small and medium size enterprises;
- *Measures to enhance the quality of educational opportunities* through a system of external and internal evaluation, certification of adult education teachers and accreditation of educational programs; and
- *Development of information counseling services.*

The Strategy is used as the guiding document for further reforms in the adult education and training system and for the programming of European Social Fund financing.

Source: Government of the Czech Republic (2007)

Coordination and partnership is an ongoing challenge – and remains essential beyond the elaboration of strategic documents for adult education and training reforms. Coordination mechanisms can take differing forms, depending on the context and type of training. In Korea or the United States, large multinational enterprises along with relevant government institutions, industry associations, small enterprises, and education providers have collaborated in creating *training consortia* and joint training centers to address strategic worker training needs. In Slovakia and the Czech Republic, there have been similar efforts of collaboration between large multinational companies and government agencies in promoting adult learning in the automotive sector. On the other hand, intensive job training programs for the most disadvantaged and low-skilled will also require continuous cooperation between the ministries of education and labor, firms, and social providers as well as advocates for disadvantaged groups. Coordination bodies can also help address information constraints and strengthen avenues to continuously disseminate information on the benefits of and opportunities for training—in particular for those groups of the population currently not well aware such as the less skilled.

In an effort to facilitate coordination, several countries have set up economy-wide adult learning bodies with broad responsibilities. The United Kingdom, for example, set up a Learning and Skills Council (LSC) which is responsible for overseeing non-tertiary learning targeted to those above the age of 16 and which works at regional as well as national levels (see Box 4). In Mexico the National Council of Education for Life and Work (CONVEyT) is responsible for building a national system of education for work and life and clarifying the role of different providers as well as evaluation and research. Bulgaria has a National Agency for Vocational Education and Training –NAVET– which convenes government, providers and social partners in defining vocational education and training policy. Such organizations, however, are only likely to be successful if the appropriate ministries are prepared for full cooperation with other stakeholders and provide backing for the organizations (OECD, 2005).¹³ Creating new designated bodies carries the risk of new layers of bureaucracy, though, and several countries such as the Czech Republic have managed to enhance cooperation between ministries without formal new bodies.

Given the varying needs across sectors of the economy, sector or industry level councils are a key component of successful adult learning systems, especially in defining standards for vocational training and developing national qualifications frameworks (see below).

Permanent regulatory bodies contribute to ensuring that qualifications continue to remain relevant to the labor market over time. The United Kingdom has been relying on a network of employer-led Sector Skills Councils (SSCs) that are responsible for coordinating with different market stakeholders and for developing quality standards. The SSCs are monitored by the Sector Skills Development Agency, which also ensures that cross-sectoral skills are adequately covered by the licensing systems (DFES, 2003). Building on the United Kingdom example and with the involvement of the social partners, the Czech Republic has formed sector skills councils, convening human resources experts from leading companies who contribute to the preparation of a national occupations framework which forms the basis for the development of a national qualifications framework. In Croatia, sector councils—reporting to the Agency for Vocational Education—have recently been established to assess skill needs in specific vocational sectors and contribute to setting occupational standards (World Bank, 2009).

Many ECA countries, particularly the EU10, have made progress in developing coordination systems, yet several challenges remain. First, the voice of labor market stakeholders relative to that of the government in decision-making processes on adult learning remains limited. For example, in Hungary, education and enterprise representatives were involved in developing vocational qualifications and curricula, but employers viewed the qualifications be too closely modeled on those of initial education, too supply-driven and insufficiently forward looking (Gunny and Viertel, 2007). Similarly, in the context of the Hungary’s employer-based training fund, a study that involved a large sample of top managers judged that government institutions had by far the most say in the allocation of the training fund, followed by training institutions, and employer’s associations, whereas the employers felt that the reverse should be the case (Godfrey, 2000). Second, coordination challenges, particularly across ministries, remain. In Hungary, for example, coordination across the ministries of labor and education remains

¹³A few countries also rely on centralized (Korea, Hungary) or federal systems (United States, Germany) to manage adult learning.

limited, evident in the fact that both ministries operate separate adult education programs.¹⁴ In Poland the Ministry of Labor and the Ministry of Education are statutorily required to cooperate on adult learning initiatives which must be approved by the Council of Ministers. However, in practice coordination has remained a challenge (OECD, 2005b).

Steering adult education and training: autonomy, accountability and strategic use of public financing

In advancing adult learning, the primary challenge for governments is to create an enabling environment for an adult education and training market to develop and deepen. Achieving a policy coordination and communication platform between government agencies and labor market actors is a crucial first step. Once set up, the question is: Which role for the government? The important message is that, rather than creating a centralized, largely publicly funded and provided system of adult education and training, ECA governments best follow the same approach for steering adult education and training systems as suggested for the other parts of the education system in previous chapters: through creating a system of autonomy and accountability, with financing to provide incentives for quality and relevance.

The adult education and training system constitute a market, with consumers of training programs on the demand side – individuals, firms and the unemployed in conjunction with the employment services – and providers of training courses on the supply side. If informed well, the consumers of adult education and training will drive a push for quality and relevance of programs. If autonomous and agile, providers will respond to this demand and offer quality programs in a competitive environment. If providers are accountable and can be held accountable, the programs will, indeed, be of quality and relevance: If a computer training provider turns out to deliver programs of limited quality and relevance, consumers will simply shift to another provider next time. Financing will largely be private – certainly for most of the CVET programs – but public funding to tackle market failures, incentivize participation of under-represented groups such as older and less skilled workers, and to finance programs for the unemployed achieves most if it provides incentives for quality – by empowering the demand side and by following competitive principles.

Autonomy...

A functioning market-based system of adult education and training requires autonomy of providers. Arguably, private providers are autonomous in determining market entry and exit as well as investment and product decisions. The same is not necessarily true for public providers – if they receive institutional funding from the government and are bound by centrally-set rules. In order to be able to truly compete in the adult education and training market by delivering quality and relevant programs, public providers will require autonomy in order to adjust to demand and competitive pressures. For example, vocational education and training schools and tertiary education institutions will need to be autonomous in determining market entry and exit as well as investment and product decisions if they are to compete. For example, the Czech Republic is encouraging public vocational education and training schools to compete in the adult training market.

¹⁴ See Gunny and Viertel (2007) for a discussion of regional variation in SEE countries. See also OECD (2005b) and Ministry of Education and Culture of Hungary (2007).

...Accountability...

Information is at the heart of accountability in adult education and training. Functioning systems of accountability require government regulatory intervention to ensure, on the one hand, adequate information to enable the consumers of adult education and training to make informed decisions and, on the other hand, to allow suppliers of adult education programs to signal quality and relevance of their program offerings. Policies that set standards for and ensure the quality of adult learning opportunities are a way to both foster supply and stimulate demand. For example, national qualification frameworks (NQF) contribute to stimulating demand by allowing workers to obtain certified qualifications which signal their competencies to employers – and address a key information constraint. They also help to make CVET and retraining of the unemployed more strategic and relevant. The regulation and certification of education and training providers—both public and private—and courses is a key aspect of developing an adult learning system. It ensures that suppliers understand what is required for education and training to be effective, and it allows users to make better informed choices.

National qualification frameworks are being developed in many ECA countries to establish coherent standards of quality for education and training systems and to create a mechanism to recognize prior learning, including formal, non-formal, and informal learning methods. For many countries in the region, they are a required component of the Bologna process. NQFs require a strong legislative basis, a high degree of coordination, and a great deal of time. Countries such as Ireland and the United Kingdom which have moved further than most in developing successful systems have spent years developing and refining them (DFES, 2003); National Qualifications Authority of Ireland, 2003). Moreover, they are no panacea, and it is important to set realistic expectations as to what they can achieve in conjunction with other policy levers in adult education and training. A recent assessment of the experience with NQFs in 16 countries worldwide showed that they may not universally, and quickly, result in better matching of demand and supply of adult education and training and in better training outcomes (Allais, 2010). Success and failure of NQFs appears to depend, among others, on the extent of constructive involvement of key stakeholders and their willingness to eventually make use of NQFs.

Employer-led sector level councils often play a critical role in developing standards. For example, in the Czech Republic the sector skills councils have started by developing national occupational frameworks for each occupation as well as key competences and qualifications that are required for each occupation. Based on this, national qualifications standards are being developed. By early 2009 more than 160 qualifications standards were in place, with additional 250 to be defined. According to the Ministry of Education, Youth and Sport, the eventual number of qualifications could reach 1,000-1,200. Given the magnitude of the challenge of developing complete NQFs, it is practical for countries to begin defining standards for a few important occupational sectors as part of working towards a broader qualification framework. Kyrgyzstan, for example, has begun piloting a qualifications system for the tourism sector as part of developing an NQF (ETF 2007).

Implementing successful national qualification systems is challenging. In addition to the challenge of setting relevant standards and coordinating across relevant stakeholders, in some countries there are social barriers to implementing qualifications systems. In some cases, members of the formal education system believe that they are the sole legitimate providers of education, and they are sometimes averse to systems that accredit formal and informal learning

results equally (Ministry of Education and Culture of Hungary, 2007). Likewise, a shift in thinking is required also on the side of employers so as to base hiring decisions on partial certified qualifications rather than on formal education degrees only. In addition, some adult learners are intimidated by obtaining qualifications, and while this does not appear to be a major barrier to adult training in many ECA countries on aggregate, it may be particularly binding for less educated workers. Regulators and providers can design learning in small units, and ensure that testing methods are approachable in order to attract learners. Computer-based testing, allowing learners multiple opportunities for assessment, and courses designed to provide learning in small units have all contributed to increasing participation of low-skilled workers and immigrant workers in the UK as part of the London Open College System (DFES, 2003).

Quality standards and accreditation systems are important to ensure the quality of adult learning providers, especially for those providers who receive public funding. Several OECD countries have developed promising inspection and accreditation systems that can serve as an example for ECA countries. Some countries such as Denmark, Portugal and Spain have also developed institutes that evaluate adult learning programs and play a helpful role in ensuring quality. The United Kingdom has established an Adult Learning Inspectorate that assesses hundreds of publicly-funded programs every year and publishes the results—with those that underperform likely to lose funding (OECD, 2005). Quality assurance systems in adult education can also involve the use of self-evaluations by providers alongside external evaluations, like in Slovenia. In the Czech Republic the Ministry of Education, Youth and Sport is certifying training programs, if not providers, for retraining of the unemployed financed by the Labor Office. The Ministry is also beginning to pilot a quality assessment system and plans to institute a star-rating system for quality based on a simple set of criteria, rather than complicated quality standards.

Programs that assess and signal the quality of adult education and training may play a particularly important role in ECA countries in helping adults with little experience in making decisions about adult learning. As shown above, cost is seen as a major barrier to adult education and training in ECA. Consistent with this, Polish providers, for example, indicated that learners seem likely to choose a program based only on price and irrespective of quality (OECD, 2005b). For those providers that do not typically receive public funding, quality seals are a promising means of assessment. Even though they rely on voluntary participation, providers have the incentive to meet the standards in order to signal the quality of their product to the market. Both Germany and Austria have developed such quality seals—although in Austria the initiative was originally led by non-profit providers and in Germany it was led more by the market providers, both receive support from the government (OECD, 2005).

Recognizing and assessing the role of teachers and trainers in adult learning is another key aspect of ensuring quality, although it has only recently been an area of focus for in EU as part of efforts to reach the Lisbon Strategy goals for adult education (Research voor Beleid and Plato Alpine, 2008). While formal accreditation may not be appropriate for all teachers of non-formal education and training, assessing their background and qualifications of the trainers, is a key part of accrediting providers. Accreditation is appropriate for those teaching formal adult education, and for those that teach well-defined specific skills such as languages, literacy or ICT. Slovenia has made considerable progress on this aspect of adult learning. The recently introduced Slovenian Adult Education Act stipulates that teachers of adult learners in formal education are required to have a teaching accreditation as well as specialization in a specific field, and certain higher education institutions accredit teachers in methods that are oriented towards the teaching of adults.

Box 5: Policy tools to advance adult learning in the United Kingdom

Traditionally, England's post-16 skill delivery framework consists of two key institutional players, supported by a host of public and private stakeholders and providers. Oversight for the Skill Strategy in England is provided by the *Skills Alliance*, a ministerial-led group made up of a number of stakeholders in the sector, including employers who offer input through their representatives, the Skills for Business Network and that National Employment Panel (NEP). Training provision is organized and funded by the *Learning Skills Councils (LSCs)* at the national, regional and local level, in partnership with Regional Skills Partnerships and colleges, providers and other key stakeholders. Providers include publicly-funded bodies, non-profit agencies and private providers.

The key channel for implementation of Government directives are the LSCs who allocate funds based on "expected demand". The planning process involves stocktaking of the existing learning environment, drawing on different labor market intelligence, and dialoguing with key partners, including employers and providers. Implementation involves regional LSCs who secure training by open bidding and closed negotiation to secure different types of training. In an effort of making the system less supply-driven, a recent independent review of the UK adult learning system, the 2006 "Leitch Review of Skills", has laid out the following principles for adult education and training: (i) *Demand-led funding*: Routing public funds for adult vocational skills through demand-led channels, ending the supply-side planning of skills provision; (ii) *Strengthening the employer voice*: Rationalizing the number of bodies aiming to articulate the views of employers into a single Commission for Employment and Skills; and (iii) *Economically valuable skills*: Reformed and re-licensed Sector Skills Councils, with one of their functions focused on ensuring vocational qualifications that reflect skills valued by employers.

Similar to efforts in other EU countries to introduce National Qualification Systems, the UK has established the National Vocational Qualification (NVQ) system which recognizes a broad spectrum of vocational skills that can be acquired both on-the-job as well as off-the-job. Most critically, the NVQ system recognizes prior learning through an assessment process. The modularity of the system allows participants to pace their learning as convenient to them. During the period of 1988-2003, approximately 4 million NVQ qualifications have been achieved, with the majority of them existing at Level 2 (Dearden et al., 2004). Yet despite the growth in these qualifications, wage returns on NVQ Level 2 qualifications have so far largely been low or non-existent, with some exceptions (ibid).

In addition, there are guidance schemes which provide information to workers and keep them better informed about market demands and the returns of training. A number of providers offer advice to workers, particularly to those who are unemployed or qualify as low skilled. Different schemes include: (i) *Jobcentre Plus* efforts to put in place measures to identify skill needs among Jobseeker Allowance recipients who had been unemployed and inactive for six months; (ii) *LearnDirect* offers personalized advice, information and guidance tailored to needs of adult clients of a skill level of NVQ 2 or below; (iii) *Learning Ambassadors*, local volunteers who have themselves undergone training and do local community outreach in order to identify and work with people in similar situations.

Individual Learning Accounts (ILA) provide funding to individuals with the lowest skill level and promote accessibility to an audience who otherwise would not have participated in training. ILA accounts make a maximum sum (between £100-200) available to low-skilled individuals who may spend on a qualification and provider of their choice funded by the government. Individuals and their employers are also encouraged to contribute. Opening an ILA account also comes with a guidance package. This policy instrument targets those individuals who are least able to borrow from private financial institutions and invest in human capital. In 2000, England implemented one of the largest schemes with 1.4 million participants. The scheme was closed down due to some irregularities. I had also been found that it was subject to significant deadweight loss, with more than half of participating individuals stating that they would have sought training without the account (OECD, 2005). However, subsequently, Scotland and Wales have implemented comparable schemes and since 2007, England is again piloting a similar scheme.

The government's Train to Gain program focuses on putting employers at the centre of identifying training needs by tailoring training packages which are jointly or fully financed by the government. The program offers financial incentives for workers with paid time-off and subsidies to employers in order to provide compensation for trainee wages. This intervention targets all market failures, from financing training (from generalized as well as firm-specific training) to overcoming time preference of employees who worry about the opportunity cost of training. The Train to Gain initiative was first piloted as ETP in 2002-2006 and covered 30,000 employers and 250,000 employees. It has now been mainstreamed across the country. Initial evaluations of the ETP indicate a small positive impact on the take-up of training for both employees and employers (Abromovsky et al., 2005).

...and strategic use of public financing

Governments already play an important role in the financing of adult education and training in ECA – through financing retraining for the unemployed through the public employment services, but also by incentivizing private investments. The existence of market failures in adult education and training provides a rationale for government investment in adult learning in ECA. Yet the key message is that government financing per se is unlikely to make a difference – it is essential to strategically utilize financing in support of better partnerships for adult education and training and to overcome the disconnect between different market players. It is with this principle in mind that this section lays out mechanisms to strategically use government financing to advance adult education and training in ECA.

The challenge is to make most out of government financing to support better partnerships by focusing it on outcomes, rather than inputs. Government financing can therefore serve two purposes: (i) shape a competitive market for adult education and training, for example through making government funding for training programs for the unemployed competitive and outcome-based, (ii) addressing market failures resulting in lower participation on aggregate or of certain groups of workers by incentivizing more private investment in adult education and training by empowering the demand side, for example through voucher programs and tax breaks. Moreover, the scope of government financing for adult education and training varies by type of training and target group. Because social returns dominate for retraining programs for the non-employed, including in particular in the underdeveloped field of second chance education, they are always likely to be largely financed from public resources. On the other hand, CVET and education for the employed generates substantial private returns to firms and individuals and therefore should be largely financed by them.

Successful adult learning systems tailor policies to the different barriers faced by those who are working and those who are out of the work and recognize that different programs will be needed to account for different skill needs. In order to encourage education and training for employed workers, incentives should be offered to both firms and individuals. Incentives targeted to firms will encourage them to increase investments in the types of training that reflect their skill needs. The economy as whole will benefit, however, if employed individuals also have the opportunity to invest in improving their skills for other jobs or for their own interests. Most countries will also need to develop strategies that integrate programs for the unemployed and those out of the labor force. Many unemployed workers will need support for training in relevant job skills to improve their employment opportunities, while those who lack basic skills (whether unemployed or out of the labor force) will need additional training that remedies those deficits before they can successfully enter the labor market

Continuing vocational education and training for the employed: promoting more private investment

While limited in ECA so far, public financial incentives to promote CVET are likely to become more prominent as countries move closer to the technological frontier and have more fiscal space. It is important that they set the right incentives and focus on strengthening the demand-side. In many OECD countries governments use public financing to promote firm-sponsored CVET – through financial incentives to trigger more private investment in education and training by firms and individuals and to overcome market failures. Two promising incentive systems for firms that can be found in many OECD countries are tax deductions for education and training

costs and payroll training levies, and some ECA countries have also begun experimenting with them. In addition, some EU10 countries have begun utilizing financing from the European Social Fund for grant programs for firms, while others have used demand-side financing to target individuals. This section discusses advantages and disadvantages of these approaches.

Allowing firms to deduct the costs of training from taxes is one of the most common forms of firm training incentives and has been implemented in most OECD countries as well as some countries in the ECA region, in particular the EU 10 and Russia. A system of tax deductions is an attractive first step for countries who wish to stimulate demand for training: Tax deduction for training costs are relatively simple for governments to administer and for firms to use, as it relies on existing tax systems. Although tax deductions generally only benefit those firms which are profitable, this can be mitigated by allowing deductions to be spread over several years.

However, tax deduction systems involve a trade-off between the risk of deadweight loss and administrative complexity. Tax deduction programs risk triggering deadweight loss: i.e. individuals and firms make use of them who would have sought training even in the absence of tax incentives. For example, experience shows that large firms are most likely to take advantage of the deduction, and firms are more likely to use the funds to train the high-skilled workers that already benefit most from training (Cedefop, 2009). This is why several OECD countries have focused on targeting financial incentives to those individuals and firms who face barriers to training through a more complex tax deduction system that uses different levels of deductions to target some firms and types of workers. While such targeting is attractive in theory, it also increases administrative costs, invites “gaming” by firms and makes it more difficult to use. Indeed, in an effort to reduce deadweight loss the Netherlands experimented with targeted tax deduction schemes but decided to abolish them in 2004, because they were considered ineffective and too complex (OECD, 2005). However, despite these challenges, tax deduction schemes can be an attractive tool to give adult education and training an initial boost in environments where few firms and individuals train, independent of their characteristics.

Payroll levy-grant training systems create a funding source for training and allow for greater targeting of training funds, but can be challenging to implement. Levy-grant systems levy a tax on the payroll (typically 0.5 to 2 percent) and disburse to firms for training purposes either in the form of reimbursements or in form of grants (Dar et al., 2003; OECD, 2005). There is promising evidence from OECD countries suggesting that well-designed training levies can increase training rates, particularly for medium-sized firms (OECD, 2005; Tan, 2001). By allowing grants to be targeted to firms and individuals who are less likely to seek training in the absence of a financial incentive, levy-grant systems can in theory also be designed so as to limit deadweight loss. However, in order to implement an effective levy-grant system in practice, countries need to take into account several considerations, including the readiness of firms to participate, the management of the fund, and how to ensure the participation of SMEs. Careful communication and coordination with the enterprise sector is key: Levy-grant systems may be a difficult proposition in circumstances where firms complain of a high level of payroll taxation and perceive a low chance of successfully accessing and utilizing the training funds.

Levy-grant systems are typically managed by a central agency, although there are also examples of firm-based mechanisms. Even in countries where payroll levy-grant systems have had a generally positive impact on raising training participation, non-compliance rates are often a concern—particularly in less advanced countries and for small firms (Dar et al., 2003). Most existing levy-grant systems rely on a central agency that manages the funds and awards them to

firms—a role which may be filled by governments or social partners (Ok and Tergeist, 2003). In order to be effective, levy-grant management agencies require strong administrative capability, quality control and training policy capacity. Levy-grant systems can also be managed in the firm itself: Poland has set up a combined training fund/subsidy which is based in the firm, and thus avoids a central management structure. If a firm commits at least 0.25 percent of its payroll tax to a training plan designed in cooperation with employee representatives, then the government will subsidize the training (OECD, 2005b).

One of the drawbacks of levy-grant schemes is that they tend not to benefit SMEs or the smallest firms. This suggests that the best way to implement a levy-grant program may involve providing targeted additional assistance to SMEs in the program, while exempting the smallest firms (e.g. those with less than 50 employees) and provide them with a different type of assistance (for specific barriers for SMEs which are not alleviated by simple financial incentives see Box 6). The Human Resource Development Fund (HRDF) in Malaysia is an example of a successful pay-roll levy program that has introduced components to target the additional constraints faced by SMEs and reduce the administrative burden. For example, rather than requiring SMEs to develop their own training plans, time-tested and pre-approved training programs are offered to SMEs by pre-approved training providers. These components also help stimulate supply, by giving training providers the opportunity to market well-defined programs (Tan, 2001).

Box 6: Support to Small and Medium Enterprises

Small and Medium Enterprises (SMEs) often face a variety of constraints which make it difficult to provide and take advantage of training, such as obsolete technology, lack of access to finance due to limited collateral, limited administrative capacity, poor management skills and a lack of knowledge about how to use training effectively. Programs alleviating SMEs' credit and financial constraints may not be sufficient in many cases to stimulate more worker training—they must be designed to also address other constraints as well. The Integral Quality and Modernization (CIMO, or Training Support Program, PAC) Program in Mexico was developed when it became clear that training subsidies alone were not effective in raising training in many SMEs. Firms who participate in the program undergo a diagnostic that identifies production methods, assesses workers' skills needs and other firm constraints.

CIMO organizes clusters of enterprises (where possible), links firms to outside providers, and subsidizes up to half of the cost of a firm's training per firm—a set of policies that are likely to be more efficient than governments providing training directly. The program has been evaluated, and has been shown to have a positive impact on not only training levels, but also on restructuring for improved efficiency and productivity. In sectors with many SMEs, particularly where they partner or act as suppliers to larger firms, programs to pool resources are promising. For example, the Korean government has supported the development of large enterprise-led training consortia in response to low take-up by SMEs of payroll tax-funded training grants available to all firms. Large enterprises have developed training consortia in response to skilled labor shortages and low quality in partner organizations and suppliers. The consortia—which have had very high participation rates—can capitalize on the training resources already existing in large enterprises and benefit the enterprises in the form of higher quality inputs and more efficient relationships with partners. They receive some direct subsidies, as well as benefiting from higher uptake of existing training grants. The Czech Republic is launching an SME retraining voucher program funded by the European Social Fund to promote professional retraining, pooling resources from the enterprises, municipalities and the ESF.

Sources: Tan and Acevedo (2005), OECD (2005), OECD (2004)

Grant schemes play an important role in many ECA countries, particularly in the EU member states, which have access to sizable grants from the ESF. They use these grants to support lifelong learning programs in line with the EU Lisbon Jobs and Growth Strategy and the Europe 2020 Strategy, its successor. Sometimes, however, these funds work on the supply and not the

demand side: Instead of providing workers with vouchers, they are programmed for training institutions. Meanwhile, some countries have utilized general budget funds for grant schemes, in particular for services for the unemployed, while Bulgaria is now operating a grant co-financing scheme to encourage in-service training of the work force in private companies.

Demand-side programs that target incentives directly to individuals are an alternative to or supplement to funding adult education and training providers. They have the advantage of allowing funds to be targeted directly the types of individuals who suffer from the greatest skills deficits. The simplest and most widely implemented program is a *tax incentive* that allows individuals to deduct the cost of self-financed education and training. The advantage of tax incentives for individuals is that they can be more easily targeted at the individual workers than tax incentives for firms. Tax incentives, however, only reach those who already earn wages high enough to pay income taxes. An alternative is *training leave* which provide workers with the possibility of reduced working hours or breaks from full-time employment, with some degree of compensation, to enroll in training programs, combined with the guarantee of a job after the completion of the training. Training leave helps overcome the barrier of insufficient time for training. Training leave is used across many OECD countries and take various forms in terms of targeting, length and level and source of financial compensation (OECD, 2005).

Grants and vouchers are promising programs designed to provide incentives for individuals to seek education and training, based on the experience of a number of OECD countries (e.g. Austria, Denmark, the United Kingdom). The advantage of grants and vouchers are that different levels of subsidies can be offered to different types of individuals based on need. For example, training voucher programs in Austria offer more generous support to older individuals, while the Adult Learning Grant (ALG) in the UK offers an allowance which varies in size according to means of the recipient (IFF Research, 2008). Voucher and grant programs oriented towards shorter courses have been designed to cover only training costs, while programs oriented towards further qualification usually must offer more generous subsidies designed to take into living expenses in order to be effective (OECD, 2005). The Czech Republic has launched a demand-side voucher program called “Pivo – support for individual learning of citizens”, financed from the European Social Fund, targeted to employed or non-employed individuals aged 25-64 to finance training in languages, ICT and entrepreneurship skills. These skills have been identified as underdeveloped among the Czech work force.

However, training vouchers do have limitations. Recent evidence from the United States, for example, indicates that their effectiveness may be hampered by imperfect information, as when up-to-date data on local skill needs are not available to either training providers or participants, in particular disadvantaged and low-skilled participants (Barnow, 2009). In addition, the effectiveness of vouchers can be affected by a limited supply of quality training providers at least in more remote geographical locations—though the existence of vouchers can help stimulate the training market.

Individual Learning Accounts (ILAs) are encouraging investments in adult learning, but are administratively complex. Like other demand-side financing schemes, ILAs are appropriate only where it is possible to safeguard against abuse and fraud. Indeed, the United Kingdom abandoned its ILA program because of fraud and abuse. The appeal of ILAs that they often rely on matching the funds of learners, sometimes in a (tax-sheltered) savings account. However, several OECD countries have found them difficult to implement. Some large employers in OECD countries have independently started implementing ILAs to encourage employees to train—

providing tax relief for firm-based accounts, where they exist, could be a helpful way to encourage training also in ECA countries.

Retraining and education for the non-employed: building a competitive market and raising effectiveness of programs

In most ECA countries, retraining and education programs for the non-employed are an important part of public active labor market policies. Governments through public employment services can use their role as purchasers of retraining services to shape the overall adult training market. Retraining and education programs for the non-employed are largely publicly financed and represent a big part of the government's involvement in the financing of adult training – through purchasing of training services for the unemployed. If used strategically, adult retraining is an important policy lever for the Government, through the employment services, to shape the adult education and training market and drive competition. If contracting out retraining services through a competitive bidding process, rather than relying on public training institutes, governments can foster the restructuring of formerly public providers and trigger market entry of new, private providers. As a large purchaser of services the government can implicitly set the rules of the adult training market and thus foster more investment of firms in CVET who will purchase training programs from some of the same providers. The Czech Republic has followed this approach in shaping its training market which has resulted, deliberately or not, in substantial market entry and a largely private provider market.

Retraining for the unemployed is most effective when strategically targeted on those who will benefit most. Countries which promote employment activation policies typically offer training only to those who need it the most and can benefit from it the most, while ensuring that other job-seekers are offered more appropriate services. Employment activation policy typically involves first providing jobseekers with individually tailored job search assistance which tends to be more cost-effective than training and has been shown to work in the ECA region, including in the Czech Republic, Macedonia and Romania. If this does not lead to re-employment, job counselor and job seeker typically agree to further assistance in the frame of an individualized action plan (which could include training or subsidized employment) to raise the job-seeker's employability and chances in finding employment. Individual action plans are most likely to be effective if they reflect the job-seeker's individual preferences, circumstances and skills levels, in particular when assessing the appropriateness of training in a particular vocation. At the same time, there must be financial disincentives for remaining unemployed while refusing training. There are a range of successful OECD examples of this type of approach to re-employment, and several ECA countries such as Slovakia and the Czech Republic have begun implementing elements of activation policy (OECD, 2008; World Bank, 2008).

Retraining programs in ECA countries can become more effective if designed to meet expressed labor market needs or to provide on-the-job training. Retraining programs can be a crucial contribution to promoting employment and strategically re-skilling laid-off workers for new jobs – an important agenda in the wake of the economic crisis. When focusing on addressing basic skill gaps, they can also promote social inclusion and labor force participation (see Box 7). While the evidence suggests that retraining programs have moderately positive effects on employment, many countries in ECA need to put more effort into effectively targeting job training and making it more responsive to private sector needs (Betcherman et al., 2004). Effective training and re-qualification will benefit from regular labor market assessments, including of vacancy data, to gauge changes in labor demand and ensure job-seekers undergo in

vocations actually demanded in the labor market. However, this can be difficult to implement in practice. For example in the Czech Republic, the labor offices conduct regular assessments of vacancies at the regional and municipal levels; however, there are barriers to the responsiveness of actual training provision to such assessments, where certain training programs are procured in bulk by the labor office. Moreover, it has been argued that regional labor offices in Poland lack the resources and training to conduct labor market assessment, therefore capacity-building is a critical part of ensuring that such assessments can take place (OECD, 2005b).

Box 7: Second chance and remedial education for equity and growth

The demographic decline witnessed in most ECA countries suggests that every person of working age needs to be brought in the labor force. This means that, in addition to an equity imperative, there is a growth imperative for social inclusion through greater skills. Many of the unemployed and economically inactive in ECA face educational disadvantage as a result of early school leaving or the failure to acquire basic skills. Second chance and remedial education programs are promising tools to address basic skills deficits which prevent adults and young adults from entering the labor force and becoming sustainably employed. They can involve basic literacy and numeracy training for people who dropped out of education early or without acquiring such skills. Overall, second chance education programs remain limited in many ECA countries, even though basic skills deficits often are a key barrier to labor force participation of disadvantaged workers. Some countries in the EU10, such as Bulgaria, have recognized that literacy is a concern for a small but significant disadvantaged portion of the population, including from the Roma minority, and have begun to extend their literacy programs in response.

Opening new pathways into employment through second chance education involves developing new outreach and delivery mechanisms. Employment services in many ECA countries have a poor record of effectively serving the most disadvantaged. Basic skills gaps such as functional literacy are typically not considered when identifying active labor market interventions for the registered unemployed, even if highly disadvantaged. Second chance education and training ideally form part of employment activation programs for disadvantaged, long-term unemployed and welfare-dependent adults. However, they require an integration of efforts of the employment services and social welfare offices and in partnership with NGOs and community-based organizations—both for reaching beneficiaries and for delivering tailored support to them.

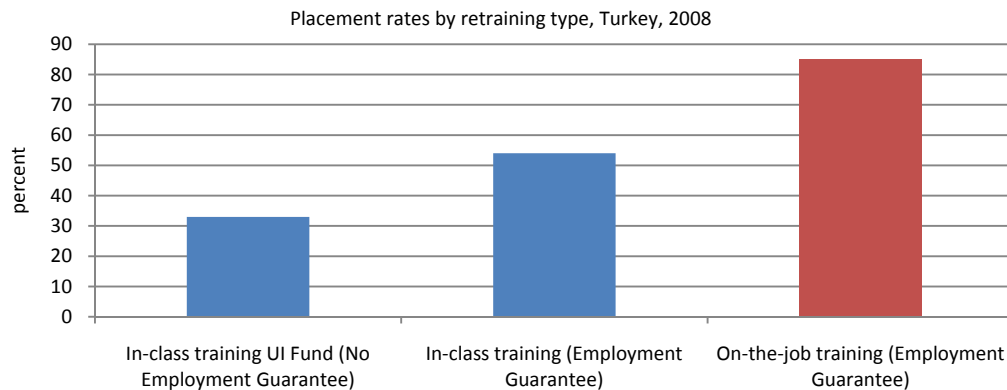
Second chance education programs often also involve behavioral and social skills training—this is especially true for young people who have failed to enter the workforce, and other long-term unemployed who have attained some basic level of education. Many such individuals are from disadvantaged backgrounds and have lacked the opportunity to develop the necessary social and behavioral skills to effectively hold down a job. For example, Czech employers cited irregular job attendance and low work motivation as reasons for not hiring (especially young) Roma (World Bank, 2008). Thus it is critical that job training for such groups takes such concerns into account. The youth-oriented Jovenes program in Latin America, shown as successful in short-run evaluations, is an example of a program that successfully combines training in vocational skills with a curriculum that aims at improving communications, personal relations and self-esteem.

Training relevance and effectiveness also benefits from performance incentives in the contracting out of training to private providers with performance-based contracts. For example, Turkey has made good experience with contracting providers with built-in incentives for achieving high job placements rates. Up until 2008, the practice of the Turkish public employment service ISKUR was to contract providers with built-in incentives for achieving high job placements rates to ensure that there is an actual demand for the skills that providers transmit in their training classes¹⁵. Recent data indicates important differences in placement rates of in-class training programs with and without employment incentives (i.e. employment

¹⁵ Despite the evident effectiveness, Turkey's new Law on Labor Force Training, adopted in 2008, abolished the placement incentive scheme.

guarantees), which highlights the importance of contract design in placement intermediation (see Figure 17). Employers may also need incentives to participate in training for the unemployed.

Figure 17: Placement incentives in retraining contracts can raise the effectiveness of retraining



Source: Staff calculations based on administrative data from the Turkish public employment service (ISKUR)

5. An agenda for advancing adult education and training in ECA

With the exception of most EU10 countries, the challenge for governments in ECA is nothing short of building new systems for adult education and training. This cannot be achieved over night. Based on the experience from OECD countries, advancing adult education in ECA will require a comprehensive strategy to empower private sector demand for training and to ensure that the vocational and tertiary education system can play its part, including through smart use of regulation and strategic financial incentives to overcome market failures in adult training.

Adult education and training is not equally important for all ECA countries. While the importance of adult learning will grow for all ECA countries as they move closer to the technological frontier, it is more important now for the technologically advanced ECA countries than for the less advanced. Moreover, its importance grows with the scale of each country's demographic decline. Figure 1 in section 1 of this paper presented a simple taxonomy of countries and the importance of adult education and training – according to their GDP per capita as a measure of how advanced the economy and according to the severity of the demographic decline. ECA countries can be broadly divided into three groups: (i) *advanced economies facing a demographic decline, con*: Consisting of the new EU Member States and Russia who compete in highly competitive markets¹⁶; (ii) *less advanced economies facing a demographic decline*, comprising many countries in South-East Europe and several rapidly aging CIS countries; (iii) *less advanced economies facing a demographic expansion*, consisting of the bulk of Central Asian countries plus Albania. Turkey and Kazakhstan do not fit well into any of the three groups. They have expanding populations yet aspire to move to the technological

¹⁶ Bulgaria, Romania and Belarus lie close together in terms of GDP per capita and the scale of their demographic decline. However, Bulgaria and Romania should consider adult education and training as more of a priority than Belarus given their membership of the EU and participation in the Lisbon Agenda and their access to sizable financing for lifelong learning from the European Social Fund.

frontier. Table 5 provides a simple policy framework guiding which of the three policy directions are more important than others and which ones should not be tackled as a matter of priority.

Expanding adult education and training is a priority for the *advanced economies facing a demographic decline* – EU10 countries, Croatia and Russia. Their challenge is to ensure that already established coordination mechanisms function well and that regulation and financing contribute to a growing of the market for adult education and training. As shown in this chapter, the EU10 countries are relatively advanced and on par with many old EU Member States in terms of training participation and structure. The Lisbon Jobs and Growth Strategy of the EU and its successor, the Europe 2020 Strategy, place a strong emphasis on lifelong learning which has served as an engine for policy change and also informed the programming of EU funds. This in turn has stimulated a further promotion of adult training. Adult education and training strategies are in place, underpinned by multi-stakeholder coordination bodies, and legislation is being introduced alongside regulatory regimes and new financing schemes.

Table 5: A policy framework for advancing adult education and training

	Advanced economies with demographic challenge	Less advanced economies with demographic challenge	Less advanced economies with no demographic challenge
	EU10, HR, RU	AR, BH, BL, GE, MD, MK, MN, SB, UKR	AL, AZ, KG, TJ, UZ
Policy and institutional foundation			
Multi-stakeholder skills task force			
National Strategy on Adult Learning			
Coordination mechanisms			
Autonomy			
Promote autonomy of training institutions			
Accountability			
National Qualifications Framework			
Regulation and certification regime			
Certification and quality control agency			
Strategic Financing			
<i>CVET – firms</i>			
Tax deductions for training for firms			
Training/payroll levy-grant schemes			
Grant schemes			
SME support schemes, with training focus			
<i>CVET – individuals</i>			
Tax deductions for training for workers			
Subsidies or vouchers for individuals			
Training Leave			
Individual learning accounts			
Loan schemes for individuals			
<i>Retraining and education for the non-employed</i>			
Job training for the unemployed			
Second chance education programs			
Legend	Priority	Consider piloting	No priority

The challenge in the EU10 is to make adult education and training systems work better and ensure that the training demand emanating from the labor market can be served by flexible

and high quality supply. Within the EU10, there are some countries, like the Czech Republic or the Slovak Republic, where training participation is high and a culture of adult education and training has taken root. Here, the challenge is to make training more effective and strategic and to raise quality by ensuring a system of autonomy and accountability, while using financing strategically. Across the region, given their large share of the enterprise sector, encouraging training in small and medium-size enterprises requires special attention. Moreover, the challenge is to ensure that less educated, older and disadvantaged workers can participate more in training, whether they are employed, unemployed or outside the labor force.

Less advanced economies with a demographic challenge – many countries in South-East Europe and the middle-income CIS – face the main priority of introducing a strategic framework and creating functioning coordination and regulatory mechanisms. Adult learning is important given the demographic challenge and the increasing proximity of SEE and middle income CIS countries to the technological frontier. However, considerations of fiscal space, competing claims elsewhere in the education system and limited administrative and policy planning capacity suggest that initial steps should be focused on strategy and less on financing and regulation. At the same time, they can benefit from experience in the EU10, such as in the Czech Republic, on ways to foster a competitive, private sector-driven adult education and training market.

Less advanced economies without a demographic crisis – countries in the low-income CIS and Albania – should limit their activities to putting in place coordination and strategic frameworks. At the same time, this report advises not to focus on developing and piloting financing schemes and developing regulation until other challenges in the education system, including related to achieving universal primary completion, are appropriately addressed. However, adopting effective coordination mechanisms should ensure that the state does not stand in the way of the private sector where it attempts to develop adult training solutions. The more limited scope of adult education and training policy proposed for the low-income CIS countries is in reflection of the fact that (i) they face a continuing challenge of improving outcomes in their main education system which will absorb much of the fiscal and policy-planning capacity, (ii) the relevance of adult training is somewhat more limited due to the differing demographic outlook and the further distance to the technological frontier compared to the countries in the EU10 or the middle income CIS.

Turkey and Kazakhstan should also follow the advanced countries' agenda on adult education and training. Both countries do not fit well into any of the three country groupings. They have expanding populations yet aspire to move to the technological frontier. In the case of Turkey, the EU accession process will focus policymakers' attention on the Europe 2020 Strategy and, therefore, also on lifelong learning. This is why, in addition to developing effective policy coordination mechanisms and strategies on adult education and training, both countries could also consider introducing regulatory systems for accountability and piloting financing schemes to promote adult learning.

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Summary Findings

In recent years skill shortages in the labor force have become a key challenge in many countries in Eastern Europe and Central Asia (ECA), suggesting that policies for continuous upgrading of skills of the workforce are increasingly important. OECD countries have identified adult education and training as a critical part of their education policy agenda, yet in many ECA countries this issue has remained peripheral to the efforts to reform education and training systems. This paper presents available evidence on the extent and patterns of lifelong learning in ECA. It argues that advancing adult education and training in ECA is important not only to meet the new skills demands but also to respond to a rapidly worsening demographic outlook across most of the region. While it is not equally important for all ECA countries, adult education and training should be high on the agenda of those ECA economies that are closest to the technological frontier and facing a demographic decline, such as the new EU Member States and Russia. The paper lays out a framework for government action to advance adult learning in ECA through a mix consisting of policy coordination between government and the enterprise sector, a sound regulatory regime and appropriate financial incentives.

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